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LELAND STANFORD JUNIOR UNIVERSITY



THE PHILOSOPHY

OF THE

HUMAN MIND.



LECTURES
ON THE
PHILOSOPHY OF THE MIND.

BY THE LATE
THOMAS BROWN, M.D. 1820-1882
PROFESSOR OF MORAL PHILOSOPHY IN THE UNIVERSITY OF EDINBURGH.

WITH A MEMOIR OF THE AUTHOR,
BY DAVID WELSH, D.D.
LATE PROFESSOR OF CHURCH HISTORY IN THE UNIVERSITY OF EDINBURGH.

SIXTEENTH EDITION.

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Printed by WILLIAM TAIT, 107, Prince's Street.

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ADVERTISEMENT.

DR. BROWN'S PHILOSOPHY of the MIND, has in this sixteenth Edition undergone another careful revision with the original manuscript; and a number of errors which had escaped the vigilance of the Editors of the first, second, and third editions, (all of which were also revised with the MS.) have been corrected. Although the MS. is very difficult to read, from its being in a small hand, abounding with contractions and interlineations, the Publisher feels assured that very few errors can have escaped this fourth revision.

To this Edition have been added the excellent MEMOIR of the AUTHOR, written by the late DR. WELSH; a PORTRAIT of Dr. Brown; and an INDEX to the Lectures; none of which advantages were possessed by the two previous editions in four volumes.

EDINBURGH, 107, PRINCE'S STREET.
21st November, 1845.

MEMOIR OF DR. BROWN.¹

THOMAS BROWN, M.D. author of the following Lectures, was the youngest son of the Rev. Samuel Brown,² minister of the united parishes of Kirkmabreck and Kirkdale, and of Mary Smith, daughter of John Smith, Esq. of Wigton. He was born at the manse of Kirkmabreck, on the 9th of January 1778.

His father survived his birth only a year and a half, and about a year after her husband's death Mrs. Brown removed with her family to Edinburgh. Here Dr. Brown received the first rudiments of his education. In the first lesson he learned all the letters of the alphabet, and every succeeding step was equally remarkable. The Bible was his class-book; and he was soon familiar with every part of Scripture history, and showed a spirit of inquiry respecting it far above his years. An anecdote which is related of him about this period is sufficiently illustrative of this. At the same time, when I mention that it happened when he was between

¹ Abridged from an "Account of the Life and Writings of Thomas Brown, M.D. Edinburgh, 1825."

² The Rev. Mr. Brown's father was also minister of Kirkmabreck and proprietor of Barharrow. Dr. Brown by his birth was connected with some of the oldest and most respectable families in Galloway.

four and five, I feel it necessary to assure the reader, that I do not state it without the most satisfactory evidence of its truth.—A lady one day entering into his mother's parlour, found him alone, sitting on the floor with a large family Bible on his knee, which he was dividing into different parts with one of his hands. She asked him if he was going to preach, as she saw he was looking for a text. "No," said he; "I am only wishing to see what the Evangelists differ in; for they do not all give the same account of Christ."

He did not attend any of the schools in Edinburgh. His education at first was entirely of a domestic nature, and his mother was his only tutor. In the middle of his seventh year he was removed to London, under the protection of his maternal uncle, Captain Smith, who placed him at first in a school at Camberwell, from which in a short time he was removed to Chiswick, where he remained several years. It was here that he gave the first promise of his genius for poetry. The death of Charles the First having been given as a theme, the master was so well pleased with his copy of verses that he thought them worthy of being inserted in a Magazine.

As more attention was paid to the classics at this school than corresponded with his uncle's ideas, he resolved—not very wisely perhaps—to place him elsewhere. It was a regulation at this school that when a boy had been once removed from it to another, he should not again be received. Upon the present occasion, however, a round-robin signed by the whole school, was sent to the master, begging him to take back *Tom Brown*, should he wish to return; and another was sent to himself, entreating him to come back to them. But to this his uncle

refused to consent, and placed him in a school at Bromley.

The last school he attended was at Kensington, under Dr. Thomson, with whom he continued till the death of his uncle in 1792, a few months after which event he bade adieu to England, and arrived again in Edinburgh under his maternal roof.

During the time he was at school, he formed many friendships which continued till the end of his life. At Kew, where his uncle resided, he became acquainted with the family of the Grahams, (mother and sisters of Sir Robert Graham, now senior Baron of the English Exchequer,) on whose friendship he always set the highest value. The time spent in the house of Mrs. Graham at Kew Green, he always looked back to as one of the most interesting parts of his life. His recollections of that interesting family are embodied in a short poem of exquisite beauty, accompanying his "Wanderer in Norway," where he tenderly describes the sensations arising in his mind, upon finding the house no longer the abode of the friends he had loved so well.

Of the particular progress that he made at the different schools he attended, I have not learned any thing with accuracy. He certainly distinguished himself in them all, and his proficiency in classical literature was very great. Upon his return to Scotland, he used to read aloud to his sisters in English from a Latin or Greek author, and no person could have suspected that he was translating.

Hitherto his reading had been extensive but desultory. Works of imagination were what he most delighted in. His appetite for books was altogether insatiable. At one school he read through the village circulating library. The librarian was pre-

vailed upon by him to put the books under the door of the play ground. His uncle's library was not very extensive; fortunately, however, there was a copy of Shakspeare in it, which he regularly read through every time he paid him the accustomed visit during the holidays.

At this period an accident occurred which prevents me from being more particular respecting his habits of study, or the progress he had made in his education. For some time past he had been a collector of books. All his pocket money was laid out in the purchase of valuable works; and these, with his prizes, and the presents he had received from his companions, formed a considerable library. Upon coming to Scotland, he travelled by land, leaving his books and papers to be sent by sea; and he took the precaution of directing that they should not be sent till the end of winter. But his care was in vain; and when looking for the arrival of his precious store, the vessel that conveyed them was lost, in fine weather, on a sand bank in Yarmouth Roads. To those who value books only by what they cost, the loss will not appear great. In the history of a man of letters, however, it ranks as an event of considerable importance; the feelings of such an individual, respecting his library, forming an interesting feature in his character. Dr. Brown always remembered the circumstance with regret, and considered it as one of the greatest misfortunes of his early life.

The property which he most valued was his books; and for them he showed an interest unusually great. This interest was increased by a practice adopted by him at an early period, of marking every passage or form of expression that appeared worthy of notice. The same course has been followed by many men of

letters, though by few so simply, so judiciously, and so systematically. He never read without a pencil in his hand, and ultimately had no pleasure in reading a book that was not his own. It is not easy to estimate all the advantages with which this method is attended; and few directions of more practical benefit could be given to the young student, than uniformly to follow it.

Dr. Brown may now be considered as upon literary ground, commencing a career, though not noisy, yet as distinguished as has fallen to the lot of any contemporary of his own country. In entering into the University of Edinburgh, he began his course by studying logic under Dr. Finlayson, whose approbation for him was so decidedly expressed, that he felt disappointed, when afterwards, through politics, that individual proved unfriendly to his interests.

The long vacation of the Scottish universities allowed him time to spend part of the summer of 1793 in Liverpool. While there he had the pleasure of being introduced to Dr. Currie, the elegant and benevolent biographer of Burns; who received him with great kindness, and honoured him afterwards with his correspondence. It was certainly flattering to Dr. Brown to have been thus distinguished at so early a period of his life. But I mention his acquaintance with Dr. Currie, not so much on this account, as because it was the means of directing his attention to a subject in which nature had fitted him to excel, and upon his pre-eminence in which his present fame seems chiefly to rest. About this time the first volume of Mr. Stewart's "Elements of the Philosophy of the Human Mind" was published. Dr. Currie put a copy of the work into the hands of his young friend, with a strong recommendation to peruse it. Perhaps

this circumstance was accidental, and what he might have done to any young man at the same stage in his studies; though I am rather inclined to think that he must have perceived it to be calculated to attract the notice of his friend. There was something in Dr. Brown's conversation, even when metaphysics was not the subject, which indicated to any one acquainted with the manifestations of intellectual character, that this was the science in which he was peculiarly qualified to excel; and it would be doing injustice to Dr. Currie's penetration to suppose that this escaped his notice. I am not one of those who conceive that the genius is determined by the accident of falling in with a book, or meeting with a friend. But certainly there are occasions upon which the powers are first called forth, and the genuine character first exhibits itself. And though, considering the intellectual atmosphere of the Edinburgh university, there seems every reason to suppose that the metaphysical philosophy would ultimately have occupied him, yet the conversation of Dr. Currie, and still more the work he put into his hands — the first metaphysical work he ever read — were calculated to give a more immediate and steady determination to his mental pursuits. Dr. Currie had soon reason to be satisfied with the judiciousness of his recommendation; and was struck, not more with the warmth of admiration that his friend expressed, than with the acuteness of his objections to many of the doctrines.

The next winter he attended Mr. Stewart's course of lectures. The delight which he experienced upon that occasion he has described with great beauty in his verses¹ addressed "to Professor Dugald Stewart,

¹ Poetical Works, ii. 117.

with a copy of 'Observations on Dr. Darwin's Zoonomia.'"

His admiration, however, of Mr. Stewart's eloquence did not blind him to the deficiency of analysis which often lurks under the majestically flowing veil of his language and imagery; and the disciple longed to combat his master. As an opening for this, he committed to paper some remarks which he had previously stated in conversation to Dr. Currie, upon one of Mr. Stewart's theories; and, after much hesitation, he at last summoned courage, and presented himself to Mr. Stewart at the close of one of his lectures, though personally unknown to him. Those who remember the dignified demeanour of Mr. Stewart in his class, which was calculated to convey the idea of one of those great and gifted men who were seen among the groves of the Academy, will duly appreciate the boldness of our young philosopher. With great modesty he read his observations; to which Mr. Stewart, with a candour that was to be expected from a philosopher, but which not the less on that account did him infinite honour, listened patiently, and then, with a smile of wonder and admiration, read to him a letter which he had received from the distinguished M. Prevost of Geneva, containing the same argument that Dr. Brown had stated. This was followed by an invitation to his house, which Dr. Brown received with a delight that was increased by the hope that in the course of familiar conversation he would have an opportunity of entering more fully into this and his other doctrines. Mr. Stewart, however, with a resolution that seems to have extended to his works, declined entering upon this or any other point of controversy. But though he was disappointed in this, he was not disappointed

in the kindness of Mr. Stewart, or in his uniform and warm and generous friendship.

For several years Dr. Brown attended the usual literary and physical classes of the university, enjoying that combination of domestic happiness, and philosophical pursuit, and literary society, which Edinburgh, more perhaps than any other city in the world, affords.

We can conceive nothing more delightful than the manner in which this period was spent by Dr. Brown; with such professors as Stewart, Robison, Playfair, and Black, and such friends as Horner, Leyden, Reddie, and Erskine, and the happiness of living in a family that he loved with the greatest warmth of affection. As he was unwilling to go abroad, many of his college acquaintances came and spent their evenings with him in his mother's house. He was always temperate in his habits. His favourite beverage was tea, and over it, hour after hour was spent in discussing with his youthful companions

The wondrous wisdom that a day had won.

There was no subject in literature or philosophy, that did not engage their attention. It was often morning before they parted; and such was the amicable spirit in which their discussions were carried on, that no one who happened to be present ever recollected the slightest appearance of irritation. In these peaceful and happy hours, Dr. Brown distinguished himself by the boldness of his speculations, the acuteness of his reflections, and the noonday clearness with which he invested every subject that was introduced. Leyden was, at this time, studying for the church, and this led their discussions frequently to topics of theo-

logy, in which Dr. Brown ever showed great knowledge and acuteness.

While Dr. Brown was pursuing his studies at the University of Edinburgh, the Theory of the learned Dr. Darwin was exciting a degree of interest in the literary world, disproportionate to its scientific merits, and which is to be ascribed partly to its novelty, and partly to the splendour of the attainments of its author. In reading "Zoonomia," Dr. Brown, as was his custom, marked on the margin such passages as he conceived to be worthy of notice. He then committed a few observations to paper, with the intention of communicating them to some periodical publication. But his matter increasing, he found that he could not do justice to the subject in less than a separate volume.

By the advice of Mr. Stewart, he resolved, before putting his manuscript to the press, to submit it to the perusal of Dr. Darwin.¹

The transmission of the manuscript occasioned a considerable delay in the publication, which did not take place till the beginning of 1798.

The work was noticed soon after its publication, in *The Monthly Review*, which at that time occupied the principal place in our periodical literature, in *The Annals of Medicine*, and in many other periodical works. In none of these was it considered as a juvenile performance, but as the answer of a philosopher to a philosopher, and in this light it received enco-

¹ For the correspondence that in consequence ensued, I must refer to my "Account of the Life and Writings of Dr. Brown." His Letters are worthy of being perused, not merely on account of the light they are calculated to throw upon some parts of his work, but also as containing a record of the progress which, at that early period, he had made in the science of mind. They also evince a degree of ingenuousness and dignity of feeling highly honourable.

miums that might have satisfied the ambition of any veteran in literary warfare.

From those acquainted with his youth, Dr. Brown received approbation still more ample and gratifying. Lord Woodhouselee and Mr. M'Kenzie, with neither of whom at that time he was personally acquainted, spoke of the preface as the most philosophical and elegant production that had been published for many years. Dr. Gregory, Mr. Stewart, and his other distinguished friends in Edinburgh, honoured the work with the most unqualified approbation.

When we consider that the greater part of this work was written before Dr. Brown was nineteen, and that it was published before he had attained his twentieth year, it may perhaps be regarded as the most remarkable, and in some respects, the most valuable of his productions; and I know not if, in the history of philosophy, there is to be found any work exhibiting an equal prematurity of talents and attainments. In a controversial point of view, its interest is greatly diminished, from the lower estimation in which the theory of his opponent is now generally held. It has, however, a value independent of its exposition of particular errors, and contains many philosophical views of great general merit and importance.

Those also who delight to trace the progress of intellect, will find in it the germ of all Dr. Brown's subsequent discoveries in regard to mind, and of those principles of philosophizing by which he was guided in his future inquiries.

In unfolding the errors of his antagonist, he discovered those false principles of philosophizing in which they had their origin, and arrived at more correct views respecting the object of physical inquiry, and the relation of cause and effect; his inquiries also

led him into an examination of the doctrines that had been maintained upon the subject of abstraction, and brought him to those conclusions which may be numbered among the most important of his speculations.

Before the publication of his "Observations," and I believe in 1796, Dr. Brown was introduced into The Literary Society; one of those associations into which the young men attending the Edinburgh University so frequently form themselves, in which they may be stimulated into greater ardour in the prosecution of their studies, and have an opportunity of improving themselves in the art of public speaking. Here he met with minds congenial to his own, young men of the most splendid talents, eager like himself in the pursuit of that knowledge, by which many of them have since conferred such honour upon their country.

In 1797 a few of the members of The Literary Society formed themselves into another association, more select, to which they gave the name of The Academy of Physics. The object of this institution was somewhat more ambitious than that of the former, and is set forth in the minute of their first meeting to be, "the investigation of nature, the laws by which her phenomena are regulated, and the history of opinions concerning these laws." At this meeting, which was held on the 7th of January, there were present Messrs. Erskine, Brougham, Reddie, Brown, Rogerson, Birbeck, Logan, and Leyden. These gentlemen were afterwards joined by Lord Webb Seymour, Rev. S. Smith, Messrs. Horner, Jeffrey, Gillespie, and many others.

For some time the society proceeded with great spirit;—and in the papers that were read, and in the conversation that took place upon them, were sown the germs that afterwards developed themselves in

works that have occupied much of the public attention. Among the most active of the members were Messrs. Brougham, Horner, and Dr. Brown ; and the institution owed much to the truly philosophic spirit and excellent sense of Mr. Reddie.

The meetings of the society continued with considerable regularity about three years, when, from various causes, the interest that was taken in it began to decline.

The Academy of Physics will be interesting in the history of letters, not merely on account of the distinguished names that are to be found in the list of its members, but also as having given rise to a publication which has displayed a greater proportion of talent, and exercised a greater influence upon public opinion, than any other similar work in the republic of letters. It can scarcely be necessary to add, that I allude to *The Edinburgh Review*.

When that work commenced, the ideas of authorship being somewhat different from what they are at present, the papers were contributed without any pecuniary compensation. Some articles were written by Dr. Brown, and bear the marks of his genius. He was the author of the leading article of the second Number—a Review of the Philosophy of Kant,—and I believe every one who has attended to the subject, will allow that he has made it as intelligible as its nature admits.

His connexion with the Review, however, was but of brief continuance. Some liberties that were taken with one of his papers, by the gentleman who had the superintendence of the publication of the third number, led to a misunderstanding, which terminated in his withdrawing his assistance from the work.

Though repeatedly and earnestly solicited to join

again as a contributor to *The Edinburgh Review*, he constantly declined, and he was never afterwards connected with any individual in any literary work.

In 1796, Dr. Brown commenced the study of law, with the intention of preparing himself for the Scottish bar. He was led to make choice of this profession, not more by the flattering prospects it opens up to the aspiring aims of honourable ambition, than by the hope that he would find professional eminence not incompatible with attention to general learning. He soon discovered, however, that such a union, of which there were so many illustrious examples, would require a frame more robust than he possessed, and he continued his legal studies only for a single year.

Upon relinquishing the study of law, he betook himself to that of medicine, and attended the usual course pursued by medical students from the year 1798 till the year 1803. During this time he was far from withdrawing his attention from letters. Besides his contributions to *The Edinburgh Review* and his papers and speeches in the societies to which we have alluded, most of the pieces contained in the first edition of his poems were then written. To the languages he was already acquainted with, he added the knowledge of German, and dipped deeply into the German philosophy. In consequence of the various pursuits in which he indulged, many of his friends entertained apprehensions in regard to his progress in professional acquirements. For this anxiety, however, there was no real cause. It was Dr. Brown's ambition to excel in every thing he undertook. And in the various examinations preparatory to receiving a diploma, which are conducted with an attention and minuteness that other learned bodies, if they consulted the dignity and respectability of their profession,

would do well to imitate, he acquitted himself to the entire satisfaction of the professors before whom he appeared. Dr. Gregory was particularly struck with his proficiency, and mentioned, after his examination, that, independently of uncommon knowledge in medicine, he expressed himself in Latin with the greatest elegance, and as fast as he could speak in English. The superior appearance that he made evidently resulted from a systematic attention to every branch of study. His acquirements were such as to supersede the necessity of having recourse to the usual preparative instructions of a medical assistant.

His thesis was entitled "De Somno," and it was equally admired for the ingenuity of the theory and the purity of the Latinity. Its classical merits were such as might have been expected from the attention that had been paid to his education in England, and from his constant habits of composing in Latin, both in prose and verse.

A few months after receiving his degree, he gave to the world the first edition of his Poems, in two volumes. It has been already mentioned, that the greater number of the pieces contained in them were written while he was at college. They are of a very miscellaneous description, and are certainly inferior to many of his subsequent compositions. At the same time they all exhibit the marks of an original and powerful genius and of a singularly refined taste.

The next publication of Dr. Brown was occasioned by the well-known controversy in regard to Mr. Leslie. For many years there had been an obvious intention on the part of many members of the church of filling up the vacant chairs of universities with the clergymen of the cities of the university seat, and their environs. This practice, though it had been strenuously resisted

from the beginning, was gaining ground with a rapidity that threatened the best interests of literature and religion. Upon the promotion of Mr. Playfair to the chair of Natural Philosophy, the claims of Mr. Leslie to the mathematical class, which had been left vacant, were so incontestibly superior to those of any clerical competitor, as to recommend him to the choice of the electors. The systematic and determined purpose of making the union of offices universal, may be judged of from the means which in these circumstances were resorted to. As there could be no dispute in regard to Mr. Leslie's scientific qualifications, an attempt was made to exclude him on account of his principles; and, by a course of proceeding altogether unprecedented, an endeavour was made to prevent his election. The ostensible ground on which this proceeding was founded, was a note in Mr. Leslie's ingenious Essay on Heat, in which he mentions with approbation Mr. Hume's doctrine respecting Causation.

In a question where the interests of science and the honour of Scotland were so vitally concerned, Dr. Brown could not remain an unconcerned spectator. Though personally unacquainted with Mr. Leslie, he felt indignant that, while he was receiving the highest honours in England, he should meet with such shameful injustice in his own country, and came voluntarily forward as one of his most zealous advocates. While other writers endeavoured to explain away what seemed objectionable in Mr. Leslie's note, and to reconcile it with the tenets of sound philosophy; and while even Mr. Leslie had unadvisedly been induced to make some concessions in regard to the limitations with which his praise of Hume was to be received, Dr. Brown boldly undertook to prove that the doctrine of Hume upon this point was not fraught with one

dangerous consequence,—and though he detected some glaring errors in his theory, he demonstrated that these errors are of the most harmless description, and not inconsistent with belief in any of the fundamental truths of religion or morality.

As Dr. Brown in his pamphlet studiously avoids all reference to the circumstances that occasioned it, and confines himself exclusively to an abstract examination of the positions contained in Mr. Hume's Essay, I do not feel myself called upon to offer any farther remarks upon the proceedings connected with Mr. Leslie's appointment—proceedings which, it may be hoped, will in this country prove the last chapter in the history of priestly intolerance at least, if not of priestly ambition.

The great merits of Dr. Brown's "Examination" were universally acknowledged. It was alluded to in the most flattering manner in *The Edinburgh Review*, in a very able article by Mr. Horner. The following short note from Mr. Stewart is extremely valuable:—

MY DEAR SIR,

It was not in my power till this morning to sit down to your Essay with the attention it deserved. I have just read it with a careful and critical eye, and can with great truth assure you that I have received from it much pleasure and much instruction. Believe me ever, with the sincerest regard,

MY DEAR SIR,

Yours most truly,

DUGALD STEWART.

A second edition of this Essay, considerably enlarged, was published in 1806. And in 1818 it

appeared in a third edition, under the title, "An Enquiry into the Relation of Cause and Effect," matured and perfected into one of the most elegant and profound works on the philosophy of mind that has appeared in modern times.

It was the good fortune of Dr. Brown to have been always noticed and appreciated by men of the most eminent talents, in every department of science. Having practised as a physician in Edinburgh from the time of receiving his diploma, he was, in 1806, associated in partnership with the late Dr. Gregory, whose name is a sufficient passport to medical distinction.

The circumstances that led to this connexion, which was in some respects of a nature rather unusual, were fully explained in a letter which was printed at the time, and put into the hands of Dr. Gregory's patients. By the friends both of Dr. Gregory and Dr. Brown, the arrangement was viewed with great satisfaction; and to the latter especially, it was considered as equally honourable and advantageous.

The letter, from which the following is an extract, was written by Dr. Gregory, after he had the fullest opportunity of judging of the character and qualifications of his youthful associate, and when sufficient time had elapsed for the sobering effect of professional intercourse to correct any over-favourable impression that might have been supposed to have its origin in the partialities of private friendship :—

" All that I have seen of Dr. Brown in the last fifteen months has tended greatly to confirm and increase the good opinion which I previously entertained of him. If worth, and talents, and learning, and science, can entitle a physician to success, I

think Dr. Brown has a fair chance of attaining, in due time, the highest eminence in his profession."

But success as a physician was not sufficient to satisfy Dr. Brown's ambition; and he would gladly have preferred the most moderate independence with literary leisure, to all the advantages that the highest professional eminence could confer.

At a very early period of his life, his peculiar qualifications and habits pointed him out as eminently fitted to enjoy and adorn an academic life. And in the summer of 1799, when the chair of Rhetoric became vacant, great exertions were made to procure it for the author of "*Observations on Darwin's Zoonomia*." The means by which these exertions were defeated, are very instructive in the history of academical patronage, and city politics. I have already alluded to the circumstance, that at that time it was the view of "the courtly side" of the church, that every chair in the University, appropriated to letters and general science, should, as it became vacant, be filled up by clergymen of the city of Edinburgh, as often as individuals belonging to that body could be found fitted, "if a minister of Edinburgh, on that courtly side, can be ill fitted for any professorship that happens to be vacant at the time when his genius for it is in demand."¹ It is to this circumstance alone that the defeat of Dr. Brown can be ascribed, as the most eminent of the literary characters in Edinburgh came forward with all their influence in his favour, and the voice of the public was decidedly along with them.

When the Logic chair became vacant by the death of Dr. Finlayson, an exertion was again made on his

¹ From an unpublished pamphlet by Dr. Brown.

behalf. Besides the influence of his personal friends, Dr. Brown, at this time, was honoured by the support of the late Lord Meadowbank, who hitherto had known him merely by having read his works. Amidst the violent and often unprincipled opposition that Dr. Brown met with, on account of his political sentiments, it would be improper to pass over unnoticed the friendship which he uniformly experienced both from Lord Meadowbank and Lord Woodhouselee. — Learning and genius are of no party; or, at least the ties of congenial talent are felt to be stronger than all the artificial connexions of political life. And it is certainly not the least distinguishing excellency of the liberal arts, that, in accordance with their noble etymology, they free the mind of those who are devoted to them from that sordid spirit which would sacrifice the interests of literature and religion to the unworthy purposes of a servile ambition; making patronage to be considered, not as a sacred trust for the benefit of those for whom it is granted, but as a source of personal advantage, or an instrument of party power, and converting situations, upon which the learning or virtue of a nation may depend, into the reward or the bribe for political subserviency. The influence of such a spirit Dr. Brown often experienced; and it is but justice to except the distinguished individuals to whom I have referred. Upon the present occasion, they exerted themselves with peculiar anxiety. His indisputable superiority as a dialectician seemed to confer upon him the strongest claims to a chair where dialectics form so principal a subject of examination; and the rare union that he was known to exhibit of great powers of metaphysical analysis, and of extensive acquaintance with the physical sciences, seemed to ensure his

success in enlarging the boundaries of the science of that principle in our nature in which all the other sciences have their origin. Their efforts, however, and those of his other friends, were defeated. Another was appointed to the chair, and he had to satisfy himself again with the fame of deserving it.

This disappointment in no degree interfered with his devotion to science; and every hour that was not employed in business was dedicated to learning. In the mean time, his name gradually became more known, and he was now generally considered as among the most distinguished of those who supported the high character of our northern metropolis for literature and genius. In continuing in the practice of physic along with Dr. Gregory, his reputation as a physician also rapidly increased, but without any increase of partiality on his part for a laborious profession, whose frequent and agitating interruptions were found to be unfavourable to close and continuous thought. The discharge of his duties was marked by that assiduous tenderness of attention which might have been expected from a disposition so truly amiable; but still philosophy was his passion, from which he felt it as a misfortune that his duty should so much estrange him.

The period, however, at last approached, when he was to be elevated to a situation suited to his tastes and habits, and where his public duties corresponded with his inclinations. Mr. Stewart, in consequence of the gradual decline of his health, being frequently prevented from attending to the duties of his class, found it necessary to have recourse to some of his friends to supply his place during his temporary absence. In general, it is very easy for a Professor to find a substitute. Nothing more is necessary than

that the manuscript lecture should be committed to a friend, by whom it is read to the class. In Mr. Stewart's case, however, it was otherwise. His habits of composition, the numerous transpositions that were to be found in his pages, and the many illustrations of which he sketched merely the outline, trusting the filling up to his extemporaneous powers of discourse, rendered his papers in a great measure useless in any hands but his own. In this difficulty he applied to Dr. Brown, who undertook the arduous task of supplying his place with lectures of his own composition. He first appeared in the Moral Philosophy class in the winter of 1808-9. At this time, however, there was no great call for his exertions, as Mr. Stewart was soon able to resume his public duties.

In the following winter, Mr. Stewart had again recourse to his assistance: after the Christmas holidays Dr. Brown presented himself before the class, and, as an apology for appearing there, read the following letter.

TO DR. BROWN.

Kinneil House, Borrowstoness, 30th December, 1809.

MY DEAR SIR,

As the state of my health at present makes it impossible for me to resume my lectures on Wednesday next, I must again have recourse to your friendly assistance, in supplying my place for a short time. Two lectures, or at the utmost three in the week will, I think, be sufficient during my absence; and I should wish (if equally agreeable to you) that you would confine yourself chiefly to the intellectual powers of man—a part of the course which I was led to pass

over this season, in hopes of being able, by contracting my plan, to do more justice to the appropriate doctrines of Ethies. On this last subject I had accordingly entered a few days before the vacation ; and it is my intention to prosecute it as soon as I shall find myself in a condition to return.

I shall be anxious till I hear from you in reply to this letter, and am,

MY DEAR SIR,

Yours very sincerely,

DUGALD STEWART.

At this period the course of my studies had brought me to Mr. Stewart's class, and I trust I may be excused for mentioning, that this was the first time that I had the pleasure of seeing Dr. Brown. With his character I was well acquainted, but the first time I saw him was when he was reading the preceding letter. I shall certainly never forget his appearance, or the reception he met with. The eloquent panegyric he pronounced upon Mr. Stewart, and the unaffected modesty with which he announced his intention of coming forward with three lectures in the week, had already secured the attention of his hearers, and prepared them for all the ingenuity and eloquence of his introductory discourse. The expectations that were excited by his first appearance were more than equalled by the marvellous display of profound and original thought, of copious reading, of matchless ingenuity, and of great powers of eloquence, which were displayed in his succeeding lectures. His elocation also attracted much notice. It was already observed that nature had led him to delight in recitation ; and in the English academies, by frequent recitations of select passages in prose and verse, he

was trained up to that command of voice and correctness of pronunciation which now obtained for him so decided a superiority in our Scottish University. The classical finish to which he was able in so brief a period to bring his lectures, must no doubt have added greatly to the enthusiastic admiration that day after day was exhibited, and which was beyond any thing of the kind that I can recollect. The Moral Philosophy class at this period presented a very striking aspect. It was not a crowd of youthful students led away in the ignorant enthusiasm of the moment: distinguished members of the bench, of the bar, and of the pulpit, were daily present to witness the powers of this rising philosopher. Some of the most eminent of the professors were to be seen mixing with the students, and Mr. Playfair, in particular, was present at almost every lecture. The originality, and depth, and eloquence of the lectures, was the subject of general conversation, and had a very marked effect upon the young men attending the University, in leading them to metaphysical speculations.

Upon its being announced that Mr. Stewart was to resume his lectures, a meeting of the class was held, when it was resolved that a committee should be appointed to draw up an address, congratulating that illustrious philosopher upon the recovery of his health, and expressing at the same time the feelings of admiration that had been excited by the labours of his substitute. The committee was composed of individuals distinguished for their rank and talents, many of whom are well known to the public. This address contains the highest testimony to the ability which Dr. Brown had displayed in the execution of the arduous task he had undertaken.

The public display of Dr. Brown's talents so over-

whelmingly established his character, and pretensions to the chair, that when Mr. Stewart signified a desire to have him united with himself in the professorship, although opposition was at one time threatened, it was but feebly exerted. At the same time, great efforts were deemed necessary by the friends of Dr. Brown, and great efforts were made. Mr. Stewart himself used all the influence that the lustre he had for so many years shed upon the University rendered so great. With an anxiety for the interests of philosophy and the character of his chair, highly honourable, he submitted, I believe, personally to solicit the support of every member in the Town Council in favour of his friend. Many letters were addressed to the patrons of the University, by individuals of the highest eminence, bearing the strongest and most unequivocal testimony to the merits of Dr. Brown. Of these letters, my present limits will allow me to insert only the following from

LORD MEADOWBANK to MR. K. M'KENZIE.

Edinburgh, 1st May, 1810.

SIR,—I understand it is now in contemplation to appoint a professor for the chair of Moral Philosophy in the University of Edinburgh; and when the honourable patrons consider the high reputation to which that chair has been raised, and the eminence which, for the last seventy years, has belonged to Scotland in metaphysical science, they must be sensible that no appointment could form an object of greater interest with the men of letters of this country. On this account I flatter myself with experiencing their indulgence in presuming to trouble

them with a few words on a subject, where the favourite studies of my youth, and my attention and habits through life, have rendered me, as I conceive, competent to form a judgment with some degree of confidence.

And I beg leave to lay it down as certain, that only a mind of very singular powers, habits, and accomplishments, is fitted to treat successfully the subjects which enter into the course of Moral Philosophy. It is not enough to have studied attentively the best writers upon them, and to be a person of judgment, worth, and literary talent and taste. There must be a peculiar aptitude of intellect, suited to the extreme subtilty of the subject, and united with an inventive vigour of thought, to form a successful teacher. Other sciences may be well taught by persons competent only to describe what is already known, though unable to add to the hoard of knowledge. But, in the present state of this singular science, without a genius fitted to extend its boundaries, and that of a very superior and peculiar character, no person ever gave a course in Moral Philosophy fitted to enlighten and animate the student. If the lectures are not warmed by the powers of original thinking, they are incurably languid and vapid, or at best descend to be little better than vehicles of amusement, filled with detached observations and pleasing illustrations.

Under these impressions, the appearance of Dr. Thomas Brown as a candidate has given me the greatest pleasure. I have heard several of the lectures which he read this last winter and the preceding, when Mr. Stewart was indisposed; and I will venture to affirm that they were productions of a mind of the first order, of profound, original, clear,

and extensive views, stored with well-digested study, and adorned with whatever inexhaustible fancy and exquisite taste can furnish, to render the most abstract of the sciences intelligible, pleasing, and attractive, to the opening minds of youth. Such endowments are rarely to be met with. They must, in the natural course of things, bring Dr. Brown forward to the foremost situation in any profession. And if his exertions, in the vigour and inventive period of life, are secured by the patrons to the chair of Morals, I shall look forward with the utmost confidence, not only to a still increased celebrity being there speedily acquired, but to a real and effective progress being achieved, in this fundamental science, which will confer new honours on our country, and incalculable benefits on mankind.

I have the honour to be,

SIR,

Your most obedient, and very faithful servant,

ALLAN MACONCHIE.

South Castle Street,

At a meeting of the Town Council in May following (1810,) Mr. Stewart was re-elected Professor of Moral Philosophy, and Dr. Brown conjoined with him as colleague in the election.

Immediately after his appointment, Dr. Brown retired to the country, where he remained till within six weeks of the meeting of the College. He judged that air and exercise might strengthen him for the labours of the winter; and, from the experience of the former year, he had sufficient confidence in his own powers to be assured that he could prepare his lectures upon the spur of the occasion. Accordingly,

when the College opened, except the lectures that were written during Mr. Stewart's absence, he had no other preparation in writing. But in his extensive reading, his thorough acquaintance with the science, a copious imagination, great powers of language, with good health and spirits, and the stimulus of an enlightened audience, he had the best of all preparations. From a mind of such a conformation, and in a state of such culture, what is called forth in the excitement of the hour, has certainly far more spirit, and generally as much correctness, as the careful and plodding products of timid mediocrity.

He seldom began to prepare any of his lectures till the evening of the day before it was delivered. His labours generally commenced immediately after tea, and he continued at his desk till two or three in the morning. After the repose of a few hours, he resumed his pen, and continued writing often till he heard the hour of twelve, when he hurried off to deliver what he had written. When his lecture was over, if the day was favourable, he generally took a walk, or employed his time in light reading, till his favourite beverage restored him again to a capacity for exertion.

His exertions during the whole of the winter were uncommonly great; and, with his delicate frame, it is surprising that he did not sink altogether under them. For several nights he was prevented from ever being in bed; and, upon one occasion, he did not begin his lecture till one o'clock in the morning of the day on which it was to be delivered. He had been engaged in entertaining a numerous company of literary friends, and it was upon their departure that he commenced his studies. The lecture¹ contains a theory of avarice;

¹ Lecture lxi.

and though I cannot agree in his general doctrine, but conceive that the desire of property is as truly an original part of our nature as the desire of power, or of any of those pleasures into which he so ingeniously endeavours to resolve it, I think it must be allowed to contain much valuable truth, and to bear no marks whatever of the rapidity with which it was composed. The subject of many of his lectures he had never reflected upon till he took up his pen, and many of his theories occurred to him during the period of composition. He never, indeed, at any time, wrote upon any subject without new thoughts, and these often the best, starting up in his mind.

To those who take an interest in the variety of intellectual character, these circumstances will be of a deeper interest than that which arises merely from the proof they convey of the rapidity of his powers of execution. They serve to illustrate a peculiarity of intellect, where the comprehensive energy is so great, that the utmost diversity and novelty of subordinate and particular disquisitions are all kept in complete unison with the general design.

The admiration of the extraordinary talents displayed by Dr. Brown in his lectures, which I experienced in common with all those who attended the Moral Philosophy class, made me very desirous of his acquaintance; and I was happy in having a much valued relative,¹ whose mother and brother had been amongst his earliest friends and correspondents, and

- whose own meekness of wisdom gave her such a place in his estimation as to secure a very favourable reception to any one whom she might introduce to his notice. From the time of my first interview he

¹ The late Mrs. Welsh of Moffat, daughter of the Rev. W. Scott, late of Kirkpatrick Juxta.

showed all that kindly attention by which his manners were characterized; and in a short period I had the happiness of enjoying the most habitual and familiar intercourse with him. I may, with great truth, apply to Dr. Brown the words of the younger Pliny, in speaking of an eminent philosopher of his time: "*Penitus domi inspexi, amarique ab eo laboravi, etsi non erat laborandum. Erat enim obvius et expositus, plenusque humanitate quam præcepit. Atque utinam sic ipse spem quam de me concepit impleverim, ut ille multum virtutibus suis addidit. At ego nunc illas miror, quia magis intelligo, quanquam ne nunc quidem satis intelligo.*"¹

I still fondly dwell upon the many happy and profitable hours spent in his society, and I shall ever look upon it as a happiness and an honour that I succeeded in securing a place in his friendship. To be admitted into the familiar intercourse of a man of virtue and genius,—to see him in his hours of greatest relaxation, when all the restraints of public life are removed, scattering his various opinions upon life and manners in fresh and luxuriant fertility, as out of a soil impregnated with all the seeds of wisdom and goodness, may be considered as one of the greatest enjoyments of life. "Who shall describe," says a celebrated living poet, in alluding to his acquaintance with another living poet of equal eminence, "who shall describe all that he gains in the social, the unrestrained, and the frequent conversations with a friend who is at once communicative and judicious, whose opinions upon all subjects of a literary kind are founded on good taste and exquisite feeling!"² In speaking upon a similar subject, Dr. Johnson has expressed himself with a

¹ Plin. Ep. lib. ii.

² Crabbe.

greater warmth of feeling than usual; and his words, in regard to an old and respected friend, with some few omissions, I may literally apply in the present instance. "Of Gilbert Walmsley, thus presented to me, let me indulge myself in the remembrance. I knew him very early; he was one of the first friends that literature procured me, and I hope that at least my gratitude made me worthy of his notice.

"His studies had been so various, that I am not able to name a man of equal knowledge. His acquaintance with books was great; and what he did not immediately know, he knew at least where to find. Such was the amplitude of his learning, and such his copiousness of communication, that it might be doubted whether a day now passes in which I have not some advantage from his friendship."¹

It might be expected that my narrative should now become fuller and more interesting from the intimacy that began to subsist between us. But every thing like incident in Dr. Brown's life terminated with his appointment to the chair of Moral Philosophy, and the nature of our intercourse afforded but few materials for biography. What I witnessed in the course of my acquaintance with him "affords matter for praise," to use the words of a biographer of Barrow, "rather than narrative." The peaceful and improving hours that are spent in the happiness of domestic privacy, owe their greatest charm to the very absence of events calculated to gratify curiosity; and the features of his domestic life, it would require the exquisite delicacy, and fidelity, and warmth, of his own pencil to portray. The more that my memory dwells upon the years of our acquaintance, the more I feel

¹ Lives of the Poets.

my inadequacy to the task of conveying any idea of that union of moral and intellectual excellencies which adorned his character, and which made his house at once a school for the intellect, and a home to the heart.

There is something indeed in the society of every man of high intellectual endowments, which is to be found only in his society, and which no description can preserve—as the flavour of some fruits is found in perfection only when we pluck them from the tree. I do not allude merely to the advantage and happiness of social intercourse, arising from the exercise of the kindlier affections, the refinements of polished life, the never-resting and intermingling lights of peaceful affection, and easy playfulness, and softened wisdom—the *seria mixta cum jocis*—but to a peculiar liveliness and distinctness, in our perception of truth itself, to which, in such circumstances, we attain. The attractive grace that the soft and flitting lights of gaiety and kindness shed upon the forms of truth seems to give them a readier way to our assent. And every one who has enjoyed the converse of a man of philosophic genius, must often have experienced a comprehensiveness and clearness in his views, beyond what either books or meditation can bestow. This is to be ascribed partly to that sympathy, by which our faculties are stimulated into a corresponding activity. But it is also in a great measure owing to this circumstance, that, besides those obstacles, in the inquiry after truth, which are common to all, every individual has peculiar difficulties arising from his mental conformation, to which, in their multiplied diversities, the arguments contained in books cannot be accommodated. But in actual conversation, the penetration of the philosopher enables him to detect and to dis-

possess the special idol of our mind. He suits his discussion to the peculiar conformation of our intellect. And the influence of his presence is felt, not merely in the new truths that he presents to us, but in his removing the impediments which check the activity of our faculties. In consequence of this, while the more obvious features in the social character of every great man may be preserved and made obvious to all, there are other traits that are altogether undefinable; and these, too, are what each individual, had he been present, would have valued most, as speaking to his own intellect. Though the excellence is the same in reality, yet it is felt as different by each, being accommodated to each individually. Bacon says, that the best part of beauty is what a painter cannot express. And the recorded conversation of a man of genius can no more convey an idea of the effect of that conversation upon those who actually enjoyed it, than the art which is able to make the eye of his portrait seem to gaze at once upon all, can convey the feeling which each individual, in the presence of the original, experienced from his living glance of affection and intelligence.

As Dr. Brown's conversational style was not less correct than his written discourse, and exceedingly fluent, those parts of his works, where the subjects admit of being treated in a more familiar manner, may, in some instances, convey a tolerably correct idea of his language in company. But the many pleasing episodes and breaks in his discussions—the elegant turns of wit—the playful personal applications with which he knew how to relieve what might otherwise have become tedious, but which were still felt to be kind even when apparently most satirical; and above all, the accommodation that he made of his views and arguments, according to the character of

. those with whom he was conversing, cannot be preserved.

Many of the most distinguished literary characters of the age were visitors at Dr. Brown's house, and few foreigners of literary eminence came to Edinburgh without being introduced to him. This certainly made his acquaintance doubly valuable,—though his own society was so delightful that I was never happier than when I found him alone. It was usually in the evening that I waited upon him. His mother and sisters were generally present, and occasionally one or more visitors, who, like myself, were on such terms with the family, that they did not require the formality of an invitation. Nothing could be more delightful than an evening spent with this peaceful and accomplished family. It was impossible not to observe the attention Dr. Brown paid to all; the art with which he made every one feel at home; and his own manners so gracefully varying with the varying theme. The tones of his voice were extremely pleasing. He conversed with the greatest fluency on every topic.¹ When the subject was of importance, his manners were animated and powerful; when about trifles, playful, with a happy turn of wit and elegance of expression. His kindly consideration encouraged every one to state his sentiments with confidence and freedom; and even when he refuted the opinions that he did not agree with, he did it so as not to offend the most delicate self-love, and poured into the mind such a flood of light, that personal defeat was forgotten in the delight of the perception of truth. When only his own family were present, he would frequently take up any book that happened to be lying on the table, or to which reference might be made, and read

¹ *Mira in sermone, mira etiam in ore ipso vultuque suavitas.*

such passages as he had marked, with many passing observations, and always courting remark in return.

For some years after his appointment to the Moral Philosophy chair, Dr. Brown had little leisure for engaging in any literary undertaking. Even the long summer vacation he found to be no more than sufficient for recruiting his health and spirits, and preparing him for the exertions of the succeeding season. By degrees, however, he became familiarized with the duties of his situation, and was enabled to indulge occasionally in other pursuits. In the summer of 1814 he brought to a conclusion his "*Paradise of Coquettes*," upon which the fame that he at present enjoys as a poet seems chiefly to rest. He had begun this poem, and written a great part of it more than six years before, but was obliged to lay it aside on account of his health. In general, indeed, writing had the effect of raising his pulse very much, and rendered it so irritable as to make a difference of thirty in sitting or standing. When the work to which I at present allude was ready for the press, he was induced, from various circumstances, to resolve upon publishing it without his name. Every thing, accordingly, was gone about with the greatest secrecy. A gentleman, in whom he reposed great confidence, transacted with an eminent publisher, from whom the name of the author for a time was very carefully concealed, and the poem was published anonymously in London in 1814.

The manner in which this poem was received, must have been gratifying to Dr. Brown's feelings. The sentence of the Reviewers was decidedly favourable; and the opinion of those, whose opinion he valued more than all the fame that a Review can give, was more favourable still. It would be doing injustice to

Mr. Stewart not to mention, that upon receiving the poem, he read it with great delight, and that his discerning taste immediately discovered the author.

Dr. Brown's next publication was also poetical. At an early period, he had written some verses to accompany the "Letters of Mary Wollstonecroft from Norway," as sent to a female friend, who had expressed a desire of reading them. These verses are to be found in the first edition of his Poems. And at Logie, in the neighbourhood of Stirling, where, in the summer of 1815, he had gone for the recovery of his health, he employed himself in filling up the plan that he had originally sketched. Upon this enlarged scale, he selected the poem to give name to a volume, and in the winter of 1815 it was published under the title of "The Wanderer in Norway."

The poetical merits of the piece consist principally in its containing what he intended it should contain,—a picture of an impassioned mind, in circumstances of strong and wild emotion, and of "the country which bears in the rapid variety of its rude and magnificent scenery many analogies to the impetuous but changeful feelings, that may be supposed to have agitated such a mind in the dreadful circumstances in which it was placed."

There are in the poem many beautiful descriptions of external nature, and many passages of exquisite pathos. Its most characteristic features, however, are its nice analyses of feeling, and detection of the secret springs of conduct, in combination with the imagery and fervour of poetry.

The great defect of the poem is, not the predominance of the philosophic over the poetic spirit,—with this I do not think it chargeable; but that it takes for granted too intimate an acquaintance, on the part of

the reader, with the circumstances to which it refers; and that the merits of the different parts depend more upon their perceived relations to the other parts, than it is wise for a poet, who considers the indolent temper in which poetry is generally read, to allow them to depend

After the rising of his class in April, Dr. Brown usually continued two or three months in Edinburgh, when he retired with his sisters to some rural retreat, in the choice of which he was chiefly influenced by the opportunities it afforded him of indulging undisturbed in his admiration of external nature. He had all his life a great love of wandering among intricate paths, climbing high hills, and proceeding to the very brink of precipices, a taste which he not unfrequently indulged to his imminent danger.

From rock to rock,
When other steps paused shuddering at the chasm
And the scant footing of the onward cliff,
His leap was first. It was a joy, to tread
The airy height, and gaze on all below,
And feel no hazard but in the firm heart
That dared to master it. Each rugged path
He knew, and steep recess, whose shadows nursed
The mountain flower.

From the usual sports of the field he shrunk with insuperable aversion; and these were the simple delights in which it was his happiness, with an almost boyish joyousness of spirit, day after day to indulge.

Walking was his favourite exercise, which he preferred to every other, as he was thus able to pause and admire a rock, a wild-flower, a brook, or whatever else of beautiful presented itself. This circumstance made him feel the presence of a stranger to be a restraint. His sisters were his chief companions.

A small rivulet, and the smoke rising from a cottage sheltered among trees, were the natural objects that he seemed to contemplate with most delight. He never could pass either without pausing first to admire. Many allusions to this are to be found in his poetry.

He spent a considerable part of two summers at Invar, in the immediate neighbourhood of Dunkeld; and the happiness he enjoyed there, and his plans connected with it, entered so largely into his thoughts, that the account of his life would be defective, if I had passed over this circumstance.

It was at Invar, in the autumn of 1816, that he wrote "The Bower of Spring." It was published in Edinburgh as by the author of "The Paradise of Coquettes;" and from this, and some other circumstances, the name of the author began to be suspected. He at one time hesitated about bringing it out in Edinburgh; and I cannot help thinking, that if it had been published in London, it would have had a much more extensive circulation. In that case, the author for a time would have continued unknown; and as the poem exhibits all the characteristic excellencies of "The Paradise," and is free from many of its disadvantages, it would have enjoyed at least an equal popularity. The volume, besides the poem which gives it its name, contains several smaller pieces of very great beauty.

In the year 1817, Dr. Brown lost his mother, whom he loved with the utmost reverence and tenderness of affection. The care and kindness with which he watched over her in her last illness, cannot be described, and his affliction upon her death was deep and lasting. Her remains were at first placed in a vault in Edinburgh, and at the end of the winter session removed to the family burying-ground in the

old churchyard of Kirkmabreck. This romantic and secluded spot Dr. Brown had always viewed with great interest. A few years before, in visiting his father's grave, he had been altogether overcome; and when he saw the earth closing in upon all that remained on earth of a mother that was so dear to him, "and the long grassy mantle cover all," his distress was such as to affect every person who saw him.

After his mother's funeral, Dr. Brown resided some months at the manse of Balmaclellan, where he wrote his "Agnes," which was published in the beginning of the winter of 1818. Its circulation does not appear to have been more extensive than that of his former poems; a circumstance for which it may appear difficult to account, as the poem is free from those obscurities that had been supposed to diminish the interest in his former pieces, and has the recommendation of an affecting and simple story.

The frequency with which the poetical works of Dr. Brown succeeded each other began to excite remark. And while the devotion of his mind to poetry, to the neglect, as was supposed, of philosophy, was objected to him by his enemies almost as a moral defect in his character, even those who were inclined to judge more favourably, regretted it as a weakness that materially injured his reputation. The objection was somewhat similar to that which Cicero tells us was made to him for the attention he paid to the Greek philosophy. "*Non eram nescius, ut hic noster labor in varias reprehensiones incurreret, nam quibusdam, et iis quidem non admodum indoctis, totum hoc displicet, philosophari, quidam autem non id tam reprehendunt, si remissius agatur: sed tantum studium, tamque multam operam ponendam in eo non arbitrantur. . . Postremo aliquos futuros suspicor, qui me*"

ad alias litteras vocent : genus hoc scribendi, etsi sit elegans, personæ tamen, et dignitatis esse negent."

To these objections Dr. Brown's answer might be the same as Cicero's :

"Si delectamur, cum scribimus, quis est tam invidus, qui ab eo nos abducat ? sin laboramus, quis est, qui alienæ modum statuatur industriæ ?"

That Dr. Brown preferred poetry to philosophy, is certain. The rapidity with which he arrived at the knowledge of the questions that have been discussed among philosophers, made him feel it as an irksome task to dwell upon those intermediate steps which were necessary for the satisfaction of other minds, though, to his quicker glance, the conclusion seemed intuitively obvious. How far he was justifiable in yielding to his own taste in the choice of his literary pursuits, it might require a casuist to decide. It must, however, be observed, that he neglected none of the duties of his situation which his health would allow ; and it does appear to me, that to aim at refining the mind, by habituating it to the contemplation of the fairest forms of beauty or virtue, may be as worthy as to determine wherein the essence of beauty or virtue consists. And the man who, by his writings, seeks to raise and refine the tone of the moral sentiments of his readers, deserves as well of mankind as if he had endeavoured to disclose to them principles that might have served to augment the wealth of the community.

That Dr. Brown did not consult for his immediate fame in the choice he made, may be readily allowed. But before he brought himself forward in the character of a poet, he was aware of the risk to which he subjected himself. And, having once resolved, he had

too much firmness of character to be moved by the censure or neglect of his contemporaries.

In the summer of 1819, after spending a few days in the neighbourhood of Glasgow with his much valued friend Mr. Reddie, he went to London, where, however, he did not long continue. Upon his return, he paid another visit to Dunkeld, with which he was still more delighted than he had ever previously been, and he resolved to spend there a part of every future summer. At this time he began his Text Book, a work which he had long intended to prepare.

In the end of autumn he returned to Edinburgh in high health and spirits, and was remarked by every person who saw him, to look unusually well. As for many reasons he was anxious that his Outlines should speedily be published, he engaged in the work with great ardour. His method of preparing it was, not to satisfy himself with a cold and formal enumeration of the heads of his lectures, but to take a distinct subject, whether it occupied one or more lectures, or was discussed in a part of a lecture, and to conceive himself speaking to one of his pupils, and endeavouring, in as short a space as possible, to convey an idea of his doctrines. Those who consider the abstract nature of the points he had thus to discuss, will perceive at once that his work must have required a very great effort of thought.

A few days before the Christmas holidays he felt rather unwell. During the holidays he confined himself to the house, and was in hopes that, by taking care of his health, he would be able to meet with his class at their termination. His only complaint at this time was what he seldom failed to be affected with when composing, quickness of pulse and a feel-

ing of weakness. In such circumstances, losing a little blood had been known to do him good, and his sisters were very anxious that he should again make trial of this remedy ; but the fear that it might keep him a few days longer from his duties deterred him. At the end of the holidays he continued nearly in the same state, and delayed lecturing for a few days. When he again met his class, his lecture unfortunately happened to be one which always excited in him a great deal of emotion. Indeed, many of his lectures affected him so much, that he found it difficult to conceal from his pupils what he felt. When he read any thing that contained sublime moral sentiments, or any thing very tender, he never failed to be much moved. The lecture to which I at present refer, is the thirty-fifth ; and those who recollect the manner in which he always recited the very affecting lines from Beattie's Hermit, will not wonder that some who attended his last course should conceive that the emotion he displayed arose from a foreboding of his own approaching dissolution.

'Tis night, and the landscape is lovely no more :
I mourn, but ye woodlands, I mourn not for you ;
For morn is approaching your charms to restore,
Perfumed with fresh fragrance, and glittering with dew :
Nor yet for the ravage of winter I mourn ;
Kind Nature the embryo blossom will save.
But when shall Spring visit the mouldering urn ?
O ! when shall it dawn on the night of the grave ?

This was the last lecture he ever delivered.

As yet he had not allowed a physician to be sent for. Having often been in the same state before, he apprehended no particular danger. When Dr. Gregory saw him, he did not think his case alarming, and ordered nothing but that he should keep himself

quiet, and not go out. On the day after this restriction he wrote the following note :—

TO DR. GREGORY.

MY DEAR SIR, — As you would not allow me to think of lecturing this week, may I beg you to take the trouble of intimating your opinion to my class. I know that, to any one else, with as few spare moments in a well-filled day as you have, this would be a very impertinent request. But I have learned by long habit to rely so fully on your friendly kindness, that I fear I have begun to think it an impossible thing to intrude on it.

May I beg you, at the same time, to state to my young Moral Philosophers, how much I regret our separation, and what double enjoyment of health I shall feel in being enabled to return to the official duties that connect me with them. That I am under your care, will, I am sure, be considered by them as a good omen of my return being the speedier.

With best regards,

Ever yours faithfully,

THOS. BROWN.

79, *Prince's Street*, Jan. 17.

The regret he felt in not being able to attend to the duties of his class, and his anxiety to get a person appointed ¹ to read his lectures, injured him greatly.

¹ The gentleman appointed was the late Mr. John Stewart, for whom Dr. Brown entertained a high esteem. The superintendence of the publication of the first edition of the following Lectures was committed to Mr. Stewart, and he added the titles and notes of reference, which, with some trifling alterations, are still retained. Upon his lamented death, which took place when the work was little more than half completed, he was succeeded in his editorial labours, by the Rev. Edward Milroy.

In the beginning of February he went a few miles out of town, to the country house of his much valued friend, Dr. Charles Stuart. The change was for a few days attended with favourable effects. The weather was at that time very mild, he thought himself rather better, and great hopes were entertained of his recovery. But, alas! these hopes were soon dispelled. The mildness of the season was but of brief continuance. A dreadful storm succeeded, with heavy falls of snow. The effect upon his feeble frame was immediate; and from this time his health rapidly declined.

It was while he was here that I saw, for the last time, my ever-lamented friend. The variety of my avocations had, about this period, prevented me from enjoying so much of his society as on former occasions; and indeed, since the commencement of our acquaintance, there never had been a season in which I had been so seldom with him. The last time I had seen him he was in the enjoyment of excellent health, and seemed more than usually sanguine in regard to the completion of his Physiology, with which he was busily engaged. Since that, I had heard merely that he was unwell, without the remotest idea that his complaints were dangerous, and I have no words to express my feelings when I entered his apartment.

Vidi egomet duro graviter concussa dolore
Pectora, in alterius non unquam lenta dolorem;
Et languere oculos vidi, et pallescere amantem
Vultum, quo nunquam Pietas nisi rara, Fidesque,
Altus amor Veri, et purum spirabat Honestum.

I found him in bed; and there was something in the sound of his voice, and in the expression of his countenance altogether, that at the very first look irresistibly impressed upon me that there was nothing

more to hope. There was no languor, however, in his eye. His face was pale, his cheeks excessively sunk ; but, amidst the death of every other feature, his eyes had all their former mild intelligence.

As upon a former occasion he had derived great benefit from a voyage to London, his medical advisers were urgent with him to try the effect of it immediately, and, as soon as the season allowed, to remove to a milder climate. "They want me," said he, with a tone of voice in which sorrow and something almost approaching to dissatisfaction were conjoined—"they want me to go to London, and then spend the summer in Leghorn, and a thousand other horrid places;" and then, after a pause, and with an altered tone of voice and expression of countenance, such as marked his allowance for human nature, and at the same time that he was stating an interesting truth, he added, "'Tis very difficult to convince them that there is such a disease as the love of one's country : many people really cannot be made to comprehend it." He then proceeded with a languid and melancholy smile, "but there is such a disease—

Nescio qua natale solum dulcedine captos

Ducit, et immemores non sinit esse sui.

Non sinit—how simply and beautifully expressive—it will not let us forget it !”

I shall always consider it as a valuable proof of his confidence and friendship, that at this time he intrusted to me the superintendence of the printing of the sheets that remained of his *Physiology*.

In a very few days I again waited upon him, when I found him somewhat better, and had much conversation with him, of the most interesting nature ; but, being entirely confidential, it is not for publication.

The last time I saw him was on the morning of his

departure for London. He had requested me to draw out an advertisement to prefix to his work, stating the cause of its appearing in an unfinished state. I mentioned that, for many reasons, I should prefer the notice to come from himself: and seeing me have a pencil in my hand, he raised himself upon his bed, leaning upon his arm, and, after a moment's pause, pronounced the long sentence which is prefixed to his volume, as fast as I could take it down, and without a single alteration. After this, the interview was too sad to be protracted, and with a heavy heart I bade him farewell.

I had not left the house many minutes, when I recollected that, in the sadness of our parting interview, and in the variety of matters we had to speak upon, there was one subject that had been neglected. As he was much exhausted before I left him, I felt the utmost reluctance in so soon again disturbing him. As I entered slowly, and even unwillingly into the room, his sister drew aside his curtain, and apprized him of my return. When he lifted up his eye, I thought there might be a little surprise, or at least that there would be inquiry. But I did injustice to his friendship. A kind smile spread itself over his languid countenance, and in a soft and tender tone of voice, which in all circumstances was affecting, but then altogether overcoming, he said, "I am glad to have another look of you." It was merely a look. I spoke a single sentence, heard his opinion, and hurried away.

Even now, I cannot think of this sad separation without the deepest sorrow; and I shall ever consider it as one of the most striking and painful lessons with which Providence has visited me.

At two o'clock on the same day he set out for

Leith. Dr. Gregory, who had attended him during his last illness, saw him on board, and was much affected upon parting with him.

Till the ship arrived in the river, he was able to sit on deck a few hours every day. The more motion there was in the vessel he felt himself the easier.

When he arrived in town Dr. Baillie and Dr. Scudamore were sent for. With the latter he was intimately acquainted, with the former slightly. He also sent for his young friend, Dr. George Gregory, nephew to the late Dr. Gregory of Edinburgh, with whom he had lived, during the time Dr. Brown was connected with him. The kindness with which this very excellent individual watched over Dr. Brown from the moment he arrived in London, made an impression upon the minds of those who witnessed it which cannot be forgotten. When his sisters remarked to Dr. Brown the tender, and zealous, and unwearied attentions of his young friend, he would say, "You know how often I have told you what a fine fellow he is."

His medical friends thought it would be better for him, on account of the air, to go to Brompton, and for a few days he did seem a little better; motion never failed to do him good. But nothing now could permanently retard the progress of his disease. Every thing that skill in medicine could devise was tried in vain: day after day he became weaker.

One painful part of his complaint arose from the want of sleep. He never enjoyed more than an hour of rest at a time, and seldom so much. Every thing that he took to make him sleep disagreed with him.

During the whole period of his illness he never was heard to utter a complaint. Gentle as he ever was, sickness and pain made him still more so. His only

anxiety seemed to be the distress which his illness occasioned to those who were dear to him.

After he became unable to sit up he was carried to the drawing-room every forenoon, where he lay upon a sofa for a few hours. He thought himself much refreshed by this. On the morning before his death he wished to be carried into the drawing-room before breakfast. He had suffered much during the night, but upon his being removed he seemed considerably relieved. When Dr. Gregory called about twelve, he was able to converse with him even cheerfully, and Dr. Gregory thought him better than he had seen him for some time. Soon after his physician left him he became rather faint, and got a little wine, which seemed to revive him for a moment, though he was still very low. His head was raised that he might cough with more ease, and in this state he breathed his last. This was between two and three o'clock of the 2d of April, 1820.

His remains were put into a leaden coffin, and laid, as was his wish, beside those of his father and mother.

Upon the death of Dr. Brown, a general and deep feeling of regret was excited.—The death of a man of high endowments must always be a subject of mournful reflection. Besides the loss to society,—the only abiding cause perhaps of regret,—there is a more affecting, and it might almost be said, a more disinterested grief, in the contrast between the exercise of those energies that seemed to raise their possessor above the lot of our feeble nature, and the extinction of them all in that sad fate which unites the highest and the lowest in humbling fellowship.

*Nec quidquam tibi prodest
Aerias tentasse domos, animoque rotundum
Percurrisse polum, morituro.*

Sad, however, as the death of a man of genius must always be, it may be attended with circumstances that excite a more than usual tenderness of sorrow; and Dr. Brown himself has, with eloquence that may almost be deemed prophetic, described the feelings that his own death excited in all those who knew any thing of what he had projected. "When we survey," says he, in a prefatory notice to one of his poems, "all which the last illness has left of one whose youthful spirit had already dared to form splendid conceptions which were never to be realized, and contrast with what we see the honours which a few years might have given, it is impossible for us not to feel as if much more than life had been lost: and the empire of death seems to have a fearful extension over the future as well as the present, when we are thus led to consider how precariously subject to it has been the glory of names which ages have transmitted to ages with increasing veneration,—a glory that, surviving the ruins of the mightiest empires, seemed the least perishable of all the frail possessions of which our still frailer mortality is proud."¹ Applicable, however, as these striking reflections must appear to his own melancholy fate, they luckily are not entirely applicable. Though Dr. Brown died too soon, both for his usefulness and his fame, he lived long enough at least "to realize some of his conceptions;" and though these may form but a small proportion, either in brilliancy or in value, to those that he had not embodied, they are sufficient to keep his name in lasting remembrance, and will be a permanent record of his accomplishments, his genius, and his virtues. His Lectures, too, were fortunately left, as

¹ Poetical Works, vol. ii. p. 92, 2d series.

has been seen, in such a state as to be sufficient of themselves to preserve his reputation. Still, however, no one who knows any thing of the difference between eloquence that is intended to be delivered, and eloquence that is meant for the press, can be ignorant of the very different and more perfect form in which he himself, had he lived, would have brought his views before the public. With all the value, therefore, that is attached to every production of Dr. Brown's, when we think of the great works he had in contemplation, it is scarcely possible not to feel that all which he has left behind him, can be compared but to some of those magnificent edifices projected by mighty architects, which were prevented from being fully completed by hostile invasion, and which now stand enduring monuments of the majesty of human genius, and of the vanity of human ambition.

I might here introduce many extracts from letters received by Dr. Brown's surviving friends after his death. I shall confine myself, however, to the following very affecting passages from a letter of Mr. Erskine¹ to Dr. Robert Anderson.

"Bombay, 26th August, 1820.

"EIGHT days ago, I saw in the newspapers a notice of the death of Dr. Thomas Brown, at Brompton, in the 42d year of his age. You may imagine how such an unexpected and grievous event affected me. I fear

¹ Well known as the admirable Translator and Editor (along with Dr. Leyden) of the *Memoirs of Baber*. I do not think there was one of Dr. Brown's friends of whom he spoke with more regard, and I have met with none who has shown more affectionate veneration for Dr. Brown's memory.

that pulmonary complaints and weakness of the chest have proved fatal to the first metaphysician, and one of the best men of our times. The extent of my private loss I cannot express. For seven-and-twenty years he has been my most affectionate and valued friend. He loved me beyond my deserts, and the loss of him alters all my prospects of home. He occupied a large space in them all, and none can supply the void. Whether I may ever revisit the land of my fathers, or not, none can tell; but in all my plans of study, in my summer rambles, and my Christmas gaieties, I looked forward to him as my guide and companion. They seem, for the moment, worthless and insipid where he cannot be. He has fallen, too, at a deplorable moment. It was only in December last that I read the third edition of his "Cause and Effect," and wrote him an opinion of it, which he can never read. It seems to me a splendid work, which, I may say, puts metaphysics on a new footing. He had opened by it a full career for his genius, in the field in which he was best fitted to shine; and the loss of some of the works which he announces in it cannot now be repaired, either to the world, or to his own fame. Some of the notes to his "Cause and Effect" settle, in the most masterly way, questions that for ages had been a subject of contention among philosophers. I long to hear more of the melancholy event that tore him away from his friends and his rising reputation. I feel his departure as a sad derangement to all my future plans and prospects. *Quando ullum inveniam parem!* A long farewell."

Dr. Brown was in height rather above the middle size, about five feet nine inches; his chest broad and round; his hair brown; his features regular; his forehead large and prominent; his eyes dark gray,

well formed, with very long eyelashes, which gave them a very pleasing and soft expression :

—his eye was keen,
With sweetness mix'd.

His nose might be said to be a mixture of the Grecian and Roman, and his mouth and chin bore a very striking resemblance to those of the Buonaparte family. The expression of his countenance altogether was that of calm reflection.

All Dr. Brown's habits were simple, temperate, studious, and domestic. He could not be called an early riser ; but neither did he indulge in the late hours too common among literary men. He seldom studied before breakfast, which took place commonly about eight, but read any light work ; or in summer, when the weather was favourable, took a short walk. He never composed immediately after taking exercise, as he thought his ideas less clear then. His time for writing was commonly from breakfast till about two or three ; when, if the day was fine, he walked out till the hour of dinner, which was about four. Between dinner and tea he conversed, or read what required little exertion of mind. He thought there was something in the time of day, independently of any other cause, that was unfavourable to mental exertion. About seven he began again his severer studies, and continued at his desk till ten or eleven. In the two periods that he chose for his severer studies, he conceived that we are both intellectually and physically stronger than at any other. These circumstances are minute ; but no student will think them too minute. That we may be physically strongest in the morning, is very probable ; and that there are certain species of mental labour, (such, for example, as depend upon arrangement and despatch,)

for which we may be then best fitted, I would also admit ; but, for all that depends upon the finer faculties of the soul, and where any thing original is aimed at, the evening, as I conceive, is incomparably more favourable. In this opinion I am confirmed by the experience of an eminent friend of Dr. Brown, who connects a faithful attention to what is called the business of life with the habits of a philosopher. It may be allowed, however, that much depends upon the constitution and habits of different individuals.

Even from the time he was a boy, Dr. Brown was most fastidious in every thing he wrote. This early habit of accuracy enabled him afterwards to write with great correctness, even when he had little time for premeditation.

While he was attending the University he invented for himself a method of writing in short-hand. He generally wrote every thing first in that character ; afterwards he extended it in the common character, and laid it aside for some time. He then read it occasionally, making such corrections as suggested themselves ; and when he had brought it to the state that satisfied his own taste, he made out another copy for the press.

He seldom read any of his works to strangers before publishing them. With the exception of his answer to Darwin, and some of his early poems, I am not sure that he ever read any of his works but to the members of his own family. To his mother and sisters he read every thing he wrote, often more than once ; and I hope I may be excused for mentioning that I was considered as one of this domestic circle. His reason for not reading his works to his acquaintances, proceeded, I think, from the fear that they might feel hurt if he did not adopt their suggestions.

He had sufficient confidence in himself to be convinced, that he would not publish any thing very absurd. He was, however, far from being averse to criticism, though he never courted it.

His corrections upon his own manuscripts were numerous before he sent them to press, but into the proof sheets he seldom introduced any change except such as the mistakes of the compositors rendered indispensable.

Dr. Brown's whole happiness was at home and in his study. No person could have a greater dislike to visiting. When he found himself again in his own house in the evening, he often said, "We have had a pleasant party, but thank Heaven I am home." This could not have been supposed by those who saw him in company, as his manners were often exceedingly sprightly. Soon after he was appointed Professor of Moral Philosophy, he allowed himself only two days a-week for going abroad. The last winter of his life he did not accept any invitations. A servant who was long with him said, that "his master had always a happy face, but that it never looked so happy as when he was coming in at his own door."

His love of Scotland was so strong that the idea of leaving it for any length of time was painful to him. He had a very perfect knowledge of the language, and thought he excelled more in reading it than in almost any thing he did. He was able to adapt his voice, in the most pleasing and skilful manner, to every variety of the character. He had innumerable old ballads by heart, which he repeated and sung in his own family in the winter evenings with exquisite beauty.

His temper was remarkably good : so perfect was the command he had over it, that he was scarcely

ever heard to say an unkind word. Whatever provocation he received, he always consulted the dignity of his own character, and never gave way to anger. Yet he never allowed any one to treat him with disrespect; and his pupils must remember the effect of a single look in producing, instantaneously, the most perfect silence in his class.

In affection as a son and brother he was unequalled. He was a kind and considerate master, and his friendship was truly invaluable.

In every thing that he said and did he had a sacred regard to truth. He was always ready to give praise to what he thought right in an enemy, and he had the courage to condemn what he thought wrong, whoever was the aggressor. He was often consulted by authors in regard to their works, and he uniformly expressed himself in a manner that did equal honour to his candour and critical discernment. Of this I have found many proofs among his papers. And it is pleasing to see that, notwithstanding the alleged vanity of authorship, his conduct was in many instances acknowledged to be more kind than the more flattering panegyrics of critics less conscientious.

One very striking feature in his character was the love and respect he bore for old age. There was something in his voice, his look, and manner altogether, when he spoke to the old or the unhappy, that is seldom seen. Even the little weaknesses of age, when unattended with vice, seemed almost to excite greater interest in him. He listened with so much kindness and attention to the complaints of the afflicted, that they were consoled by finding such an interest felt in them. And, in his professional capacity, when the griefs of his patients were in many respects imaginary, he had the rare art of convincing

them that they were so, without wounding their feelings. The poor and the unfortunate he made perfectly at ease with him—which many with good intentions fail in doing — often, perhaps, from an over-anxiety and a too obvious condescension. His art consisted in the kindness of his own heart, which found its way to the heart. And many acknowledged, that while they felt the highest respect for his character, they could speak with more freedom to him than to their own relations.

The tenderness and the quickness of his sympathy was such that he could not bear to see any living thing in pain. The cold-hearted would have smiled, perhaps, had they seen the patient and anxious care with which he tried to relieve the sufferings of animals that to them would have appeared unworthy of a thought. He considered the duties which we owe to the brute creation as a very important branch of ethics, and, had he lived, he would have published an essay upon the subject. He believed that many of the lower animals have the sense of right and wrong, and that the metaphysical argument which proves the immortality of man, extends with equal force to the other orders of earthly existence.

At a very early period Dr. Brown formed those opinions in regard to government to which he adhered to the end of his life. Though he was not led to take any active part in politics, he felt the liveliest interest in the great questions of the day; and his zeal for the diffusion of knowledge and of liberal opinion was not greater than his indignation at every attempt to impede it. The most perfect toleration of all religious opinions, and an unshackled liberty of the press, were the two subjects in which he seemed to take the most interest, and to consider as most essential to national

happiness and prosperity. In his judgment upon every political question he was determined solely by its bearings upon the welfare of the human race; and he was very far, therefore, from uniformly approving of the measures of the party to which he was generally understood to belong. Indeed he often said, that liberty, in Scotland at least, suffered more from the Whigs than from the Tories,—in allusion to the departure that he conceived to be sometimes made from professed principles, with a view to present party advantage, — and still more to the over-readiness that was sometimes shown in making professions of loyalty, when the character for sound principles was unnecessarily maintained at the expense of the cause of liberty. In the college he was uniformly averse to the introduction of political discussions, and disapproved of the practice of sending addresses to the throne. The character of professors, he conceived, like that of judges, should be beyond suspicion. From this circumstance he was often represented as of republican sentiments. This, however, was without foundation. He was a warm admirer of the British constitution, though his admiration was not of that blind and indiscriminate nature that prevented him from supposing it to be susceptible of improvement. Limited and hereditary monarchy he conceived to be perhaps the best that the present state of society admits.

He had the greatest interest in the university of which he was a member, which he showed on various occasions. He was the warm friend of his pupils; and nothing gave him greater pleasure than when he had it in his power to be of use to them. I know, in more instances than one, where he suggested subjects which he conceived to be suited to the talents of his friends; and the success of the works has shown how

correctly he judged. He often said, "I feel very grateful to my young friends for the kind and fearless manner in which they express their approbation of my lectures. They come to me without prejudice, and they have always done me justice, which is more than I have met with from some who should have acted differently."

He was intimately acquainted with the principles of almost all the fine arts; and in many of them showed that practice only was wanting to ensure perfection in his powers of execution.

His acquaintance with languages was great, and he might be said to have a talent for languages. French, Italian, and German, he read with the same ease as English. He read also Spanish and Portuguese, though not so fluently. He was as familiar with French literature as with that of our own country. This circumstance had sometimes an unfavourable effect upon his taste, and may be observed occasionally in his style. In commencing the study of a new language, he scarcely at first paid any attention to the grammar, but proceeded at once to peruse some work that was familiar to him. His first step was generally to procure a New Testament in the language he was to study, and he then immediately began with the Gospel by St. John. A similar method, he mentioned to me, was pursued by his friends Leyden and Murray, two of the most eminent linguists that our country has produced.

In any language with which he was acquainted he read with a rapidity that appeared inconceivable. The period from his receiving a volume till his laying it aside was so brief, that his own relations could scarcely be convinced he had perused it, till he satisfied them by showing his acquaintance with its contents.

I have already alluded to his powers of memory. His sisters used often to try him with twenty or thirty lines from a French or Italian author, and after a single reading he was able to repeat them without a mistake. He thought that his memory appeared rather better than it really was, from the power he had of conjecturing quickly, when he knew the subject, what the author was likely to say.

Dr. Brown numbered among his friends many of the most distinguished characters of the day. Dr. Gregory, and Messrs. Playfair, Russell, and Leslie, were his chief friends among the professors. Mr. Leslie has uniformly shown himself a warm friend of Dr. Brown ; and the kindness and respect which this eminent philosopher has expressed both in public and private, has made a deep impression upon all Dr. Brown's friends. Among the friends of Dr. Brown, particular mention should be made of Lord Webb Seymour. The nature of the friendship which subsisted between them is sufficiently shown by the request that was made to Dr. Brown by the Duke of Somerset, to prepare an account of his brother's life. This request, the state of Dr. Brown's health, and the variety of works which he had in contemplation, more immediately connected with his professorial situation, obliged him to decline.

Among these works, the first which he proposed, after bringing his Outlines to a conclusion, was to be entitled Ethical Essays. He then intended, in two separate works, to give a theory of Virtue and of Beauty. After this he contemplated a work on the Philosophy of Physical Inquiry. This last work, it is particularly to be regretted that he did not live to accomplish — as in it he would have brought forward some views in regard to the material universe, that

would have placed his character as a philosopher in a new aspect. He had a theory of heat that he intended then to bring forward. Upon this theory he set great value; and when urged to publish it without loss of time, lest others might fall upon it, he said that it was of such a nature that there was no fear of such anticipation. A fragment of the Essay had been committed to paper when he was member of the Academy of Physic; but it contains merely his views upon the theories of others, and there is nothing in it that can enable us, with any show of probability, to conjecture what were his own sentiments.

He intended also to give a very full course of Political Economy. His first intention was to deliver his lectures upon that subject in summer; but he was soon convinced that this would confine him too much to the town, and he resolved for one year to endeavour to give a lecture at three o'clock. Political Economy was a subject which had occupied much of his thoughts before he was elected professor. There is cause to regret that all his notes, from different works, as well as his own views, are lost to the public, having originally been written in short-hand, and never extended.

He intended, after having delivered his lectures upon Political Economy for six or seven years, to resign his situation, and retire to the country, where he proposed to prepare his lectures for publication, and devote himself, without any interruption whatever, to letters and philosophy.

I shall now conclude this sketch with a summary of what I conceive to have been the distinguishing characteristics of Dr. Brown, as a man, and as a philosopher.

Among the more prominent features of Dr. Brown's character, may be enumerated the greatest gentleness

and kindness and delicacy of mind, united with the noblest independence of spirit, a generous admiration of every thing affectionate or exalted in character, a manly contempt for every thing mean or selfish, and especially for those arts by which the feeble and unworthy raise themselves to situations that they can only disgrace — a contempt that he expressed with a freedom which could not but be hurtful to his own popularity, where these arts are so common and so successful — a detestation for every thing that even bordered on tyranny and oppression, a truly British love of liberty, and the most ardent desire for the diffusion of knowledge, and happiness, and virtue, among mankind. In private life he was possessed of almost every quality that renders society delightful; and was indeed remarkable for nothing more than for his love of home, and the happiness he shed around him there. It was ever his strongest wish to make every one who was with him happy; and with his talents it was scarcely possible that he could fail in his object. His exquisite delicacy of perception gave him a quick fore-feeling of whatever might be hurtful to any one; and his wit, his varied information, his classical taste, and, above all, his mild and gentlemanly manners, and his truly philosophic evenness of temper, diffused around him the purest and most refined enjoyment. Of almost universal knowledge, acquired by the most extensive reading, and by wide intercourse with the world, there was no topic of conversation to which he seemed a stranger; and such was his comprehensiveness and readiness of intellect, that he threw new light on subjects that might have appeared most foreign to his habits of thinking. At the same time, there was no obtrusion of abstruse topics or recondite reflections. He was always willing to follow

the stream of conversation wherever it flowed, and was as ready to disport with the commonest topics, as to discuss high points in philosophy. So much was this the case, that strangers sometimes considered the accuracy of his knowledge upon subjects which might be supposed unimportant to a philosopher, as bordering on pedantry, and the interest he seemed to take in them as affected. The fact however was, that his active mind embraced and retained almost without an effort every subject of human knowledge, and his kind heart considered nothing as unimportant, which could in any degree affect the happiness of a single human being. There generally ran through his conversation a vein of easy pleasantry and wit. His wit was peculiar, and predominated over his humour. The consequence of this was, that his combinations, delicate and original as they were in a high degree, were not always such as excite to laughter. Those, therefore, who have no standard of wit but the noisy merriment it occasions, and who cannot think it natural if it does not flow from a highly excited state of animal spirits, looked upon his feats of intellect as implying an effort which was not always successful; and it required a more refined taste to perceive, that they were in reality the beautiful and altogether unconstrained result of a peculiar conformation of intellect. I have been a little fuller upon these two points in Dr. Brown's character, because they were sometimes misapprehended. I may also here remark, that his extreme affability was sometimes ascribed, by those who would have been ready to represent a colder and more distant behaviour as indicative of pride, to an affected politeness, in which the heart had little share. The very contrary of this, however, was the fact; bland and kind as his manners were, his

heart was still kinder ; and warm as were his professions of friendship and attachment, whenever he had an opportunity, he showed that he was more ready to do than to say.

As an author, his fate has been singular, and, during his own lifetime, hard. Though it was never disputed that he had first-rate talents, none of his works, while he was alive, ever attained any great popularity ; and, in the reviews of the day, the name of Dr. Brown is almost the only one of any celebrity that is never to be found. As a poet he was peculiarly unsuccessful. The many considered it to be impossible that the subtlest metaphysician of the age could be a tolerable poet, and paid no attention to his productions ; and the obscurity that common readers found in many of them, tempted them to endeavour to turn into ridicule what they did not understand. It was, therefore, not very safe to express approbation of any of the poems ; and they had thus the uncommon fate of being more read and admired than praised. Those who were charmed, did not choose to subject themselves to the ridicule of owning it. " Thinking what the dull would think, they feared to praise."

It is only as an elegant writer, and as a metaphysician, that the public have been willing to recognise Dr. Brown ; and even as a metaphysician, it is painful to reflect that during his life, his fame was never equal to his merits. Subtleness and acuteness were allowed to him at the expense of his higher qualities. I am disposed to ascribe this to the very greatness and universality of his powers, and am convinced that he would have been a much greater favourite with the great bulk of readers, had he, with the same refinement and eloquence, been less ingenious and profound. But without speculating on the causes that

prevented him from obtaining that general popularity which he so well deserved, and which is now beginning to be expressed, when, alas ! it is too late for him, it may be better to give a view of those excellencies which were but partially appreciated ; so that the honours which were withheld from him when he was alive may not be denied him now that he is dead, and that the laurels which can never deck his brow, may at least be hung upon his hearse, and strewed upon his grave.

In the philosophic love of truth, and in the patient investigation of it, Dr. Brown may be pronounced as at least equal, and in subtlety of intellect and powers of analysis, as superior, to any metaphysician that ever existed : or, if there ever was any philosopher who might dispute with him the palm for any one of these qualities, of this at least I am certain, that no one ever combined them all in equal perfection. The predominating quality in his intellectual character was unquestionably his power of analysing—the most necessary of all qualities to a metaphysician. In itself, indeed, it is not, in however high a degree it may be possessed, sufficient to make a perfect metaphysician ; but it is the most essential ingredient in the formation of such a character. Without it, a man may make many useful practical observations on the constitution of our nature, and from these he may deduce important conclusions as to the wisdom of God, and as to the conduct becoming a man in the various situations in which he may be placed ; but this is all that he can do, — he throws no new light upon the science of mind,—he is acquainted with the mental phenomena as an artist merely, and not as a philosopher. In the quickness and subtlety of intellect, of which the power of analysing is compounded,

and which, whatever may be the estimation in which they are held by men of merely practical understandings, are so indispensably necessary to the philosopher of mind, there cannot be named, after Dr. Brown, any one who can be considered *aut similis aut secundus*. It is impossible, indeed, to turn to a single page in his writings that does not contain some feat of ingenuity. But it was in metaphysics that he turned this power to most account, and where the results are most astonishing. States of mind that had been looked upon for ages as reduced to the last degree of simplicity, and as belonging to those facts in our constitution which the most sceptical could not doubt, and the most subtle could not explain, he brought to the crucible, and evolved from them simpler elements. For the most complicated and puzzling questions that our mysterious and almost inscrutable nature presents to our inquiry, he found a quick and easy solution. No intricacy was too involved for him to unravel, no labyrinth too mazy for him to explore. The knot that thousands had left in despair, as too complicated for mortal hand to undo, and which others, more presumptuous, had cut in twain, in the rage of baffled ingenuity, he unloosed with unrivalled dexterity. The enigmas which a false philosophy had so long propounded, and which, because they were not solved, had made victims of many of the finest and highest gifted of our race, he at last succeeded in unriddling.

A capacity for analysing like his was not, perhaps, to be expected at an earlier age of the world. As this is the last quality that displays itself in the individual, so it is the last feature that is exhibited in the literature of a country. No ancient nation probably cultivated letters sufficiently long to bring them to this point in their intellectual progress. Certain it is

that we should look in vain among the ancients for any extraordinary display of dexterous analysis. Had any one even arisen superior to the age in which he lived, his language would have prevented the full display of his powers ; for exquisitely fitted as the ancient languages are to convey complex conceptions, they want flexibility for the nicer turns of thought. A history of the progress of the analytical capacities of language, and a comparison of different languages in this respect, is a desideratum in literature. It would throw much more light upon the intellectual character of nations, and upon the nature of the human mind itself, than seems generally to be supposed.

Since the subject of language has been introduced, I may here make a few observations upon the use that Dr. Brown made of it in his philosophical investigations. The only real use of abstract language, as has been seen, is to make us acquainted with the truths of which the world is already in possession, and to give permanence to the truths which we ourselves may discover. This fact, however, obvious though it may appear, has been disputed by almost all metaphysical philosophers. Language has been represented by them as the instrument of thought ; and indeed, to read the trifling and merely verbal disputes of many metaphysicians, it would appear that it was often their only instrument. Dr. Brown, at a very early period of life, acquired correct views of the true purposes for which language is to be employed, and, by a habit of analyzing every complex term, escaped completely from what Bacon calls the *idola fori*. The habit to which I allude was a very striking characteristic of his intellect ; and no account of his character as a philosopher would be complete, in

which it was not very particularly noticed. It is impossible to say how much greater efficacy it gave to his acuteness. It derived its origin doubtless from his great activity and ingenuity; and no one, unless he had these qualities in an equal degree of perfection, could arrive at the same dexterity and power: it therefore detracts nothing from the merits of his discoveries, to ascribe the most important of them to this habit. That I do not over-rate its influence, those who are at all acquainted with his works will admit, when they are reminded of the words Power, Volition, Occasional, Efficient, and Physical Causes. — Dr. Brown himself has remarked, in the preface to the third edition of his work "On Cause and Effect," that "The very simplification of the language itself, in which we are accustomed to think of the abstract relations of things, is one of the most important contributions which metaphysical analysis is occasionally able to make to the philosophy of physical inquiry,—that highest and noblest logic, which, comprehending at once our intellectual nature and every thing which is known to exist, considers the mind in all its possible relations to the species of truths which it is capable of discovering. To remove a number of cumbrous words is, in many cases, all that is necessary to render distinctly visible, as it were, to our very glance, truths which they, and they only, have been for ages hiding from our view."

In these respects, the benefits Dr. Brown has conferred upon philosophy are inestimable. He has in a thousand instances simplified the language in which we are accustomed to think of the abstract relations of things, and he has removed and explained many of those words which, more than any other cause, have had the effect of blinding and misleading metaphysi-

cians. This, indeed, is his favourite organ in the discovery and elucidation of truth. He does not in his reasonings trust much to analogy, nor to the bringing of an individual example under a general rule; nor does he attempt to gain our prejudices on his side, by addressing himself to our pride of understanding on the one hand, or to our common sense on the other—the usual methods of our metaphysicians. His object is, by clearly defining his terms, to withdraw the attention of the reader from words to things. This is not always perhaps the most agreeable, but it is by far the shortest and the surest road to truth; for if we could all look upon nature herself with our own eyes, unbiassed by the views that others have taken of her, our conclusions would seldom be erroneous. In metaphysics, and indeed in all the sciences where the human mind is directly concerned, the chief art that we have to learn is to analyze, quickly and directly, the language we employ. For explaining and teaching this art, and for evincing its importance, I know of no works equal to those of Dr. Brown; and they might be recommended to those who wish to acquire this art of thinking, in the same spirit that dictated the famous saying of Locke: “If you wish your son to learn logic, make him read Chillingworth.”

To his power of analysis, then, there can be no hesitation in giving the first place, in the view of Dr. Brown's intellectual character. But a mere capacity of analyzing, as has been already remarked, though indispensably necessary to all those who would extend the boundaries of science of any description, and above all of metaphysical science, is not of itself sufficient to constitute a philosopher. To form a perfect philosopher, another quality is necessary: a

quality which, as Dr. Brown has observed, "sees through a long train of thought a distant conclusion, and separating at every stage the essential from the accessory circumstances, and gathering and combining analogies as it proceeds, arrives at length at a system of harmonious truth. This comprehensive energy is a quality to which acuteness is necessary, but which is not itself necessarily implied in acuteness; or, rather, it is a combination of qualities for which we have not yet an exact name, but which forms a peculiar character of genius, and is, in truth, the very guiding spirit of all philosophic investigation."

The idea is very prevalent, that this comprehensive energy, though involving acuteness, is incompatible with that quality when it exists in a more than usual degree. And it certainly has generally happened, that those who have been distinguished for their ingenuity, have wasted their powers in unprofitable displays of subtlety, satisfied with detecting error, or discovering particular truths, without arranging the result of their analytical efforts into a regular system; and that men of more comprehensive minds have employed themselves in recording the more obvious analogies of things, without attending to their minor differences, in consequence of which their arrangements, however practically useful, have been philosophically erroneous and liable to be exposed by subtler intellects. It might easily be shown, from the principles of our nature, that this has arisen merely from accidental causes, and that there is no real incompatibility between the two qualities. But an abstract discussion of the question is unnecessary: the case of Dr. Brown sets it at rest. His comprehensiveness, though not equally remarkable, was almost equally remarkable with his acuteness: and

I recollect no philosopher to whom, with so much justice, can be applied the admirable passage in Bacon, where, in his address *Ad Regem Suum*, he paraphrases the sacred comparison of the heart of the king to the sand of the sea—"Cujus quanquam massa prægrandis, partes tamen minutissimæ; sic mentis indidit Deus majestati tuæ crasim plane mirabilem, quæ cum maxima quæque complectatur, minima tamenprehendat, nec patiatur effluere: cum perdifficile videatur, vel potius impossibile in natura, ut idem instrumentum et grandia opera et pusilla apte disponat."¹ It is by the union of these two qualities that Dr. Brown may most easily be distinguished from other philosophers. For example, he may thus easily be distinguished from Smith and Hume. Smith had more, perhaps, of the comprehensive quality, and Hume was nearly as acute: but Smith was inferior in metaphysical acumen; and Hume, with all his ingenuity, could not rear a consistent system. The names of Hume and of Smith may be considered as representative of two numerous classes of philosophers. There is another class, at the head of whom may be placed Dr. Reid, who employ themselves chiefly in the induction of facts, in the choice of which they are determined by their practical importance alone, and who scarcely pay any attention to the relations that bind them together. From this class Dr. Brown may be more easily distinguished than from any other. Facts to him had little other interest, but as they were to be analyzed and arranged; and his arrangements were made not according to the accidental uses, but according to the essential properties of objects. He valued truth for its own sake; and no accidental interest,

¹ De Augmentis Scientiarum, lib. i.

or temporary subserviency to particular purposes, had any influence with him. He was, in the strictest sense of the word, a man of science. To this last circumstance, more, perhaps, than to any other, is to be ascribed the fact, that the fame he has enjoyed is so little when compared with the character that has been given him. The great bulk of readers value truth, at least such truth as does not interest their passions, merely in reference to its application to use; and abstract truth can never be very useful to any one in the intercourse of life, till the progress of observation and of science brings remote relations frequently before the view of a great proportion of the members of society. The more subtle and profound, therefore, that a philosopher is, if he does not join to his subtlety and comprehensiveness of intellect a practical understanding, the more contracted, for a time, must be his fame. I am aware, accordingly, that my opinion as to the rank that Dr. Brown holds among philosophers must appear to many to be higher than his merits entitle him to. But I am confident, that those who are able to judge for themselves, and who will carefully compare the views of Dr. Brown with the views of the philosophers that preceded him, will ultimately confirm the decision.

Such, then, were Dr. Brown's powers for philosophizing. Next to the powers of a philosopher for discovering truth, is his capacity for illustrating it. I shall now, therefore, make a few remarks upon Dr. Brown's style, understanding by that word all those qualities that are concerned in the statement of a doctrine, or of a system.

The circumstance that is most remarkable in Dr. Brown's style is the synthetical manner in which he

states his doctrine. Though the most analytical of all philosophers in his inquiries after truth, he is the most synthetical in delivering the result of them. Some writers lead the reader to a general conclusion by the same path that they themselves pursued in the discovery. They start the doubts that at first occurred to themselves; they suggest the solutions that satisfied their own minds; and thus they proceed, appearing to follow rather than lead their readers. But Dr. Brown pursued a method exactly contrary. After bringing a subject, by a cautious induction of innumerable particulars, to the greatest degree of generality, he then opens it up to the reader in the most systematic manner, presenting the separate truths, neither in the relation in which they suggested themselves to his own mind, nor in the way in which they may insinuate themselves most easily into the mind of the reader, but in the relation which they hold to each other in nature. To those who love truth for its own sake, this is decidedly the best method, and it is desirable that it should be followed in all scientific works. It may, perhaps, have a more uninviting appearance, but it is not in reality more difficult. There is no royal road, as has been observed a thousand times, to science of any kind: if we wish to have a systematic view of a subject, we must submit to much abstract thinking; and it is better to begin with this at once, than to follow any other method which will only in the end lead us to the point where we ought to have begun, or perhaps satisfy us with false or superficial views. An architect, to have an accurate idea of a fabric, would prefer a single view of it, with a plan, on a reduced scale, of all its different apartments, their uses, and mutual connexions, to the most exquisite collection of sketches from different

distances in the most picturesque or beautiful points of view, with an unconnected description of one or two of its ampler chambers and more spacious galleries.

This systematic method is especially necessary in metaphysica, where, from the evanescent nature of the objects of our attention, we are apt to be satisfied with vague and undefined ideas. But though it may be the most philosophical, it is by no means the most likely to be popular; and accordingly very different plans have been followed by our most celebrated metaphysicians. Mr. Stewart, for example, to relieve the tedium of abstract disquisition, introduces innumerable illustrations. When Hume states a new doctrine, he opens his subject much in the same way that he would in conversation with a friend: he adduces instances to stimulate and enlighten the mind of the reader; and he uses not merely the familiar phrases of conversation, but abounds also in those rapid transitions, those frequent repetitions, those varied representations, that would do better in society than philosophical discussion. Smith is much more systematical; but he too often introduces his illustrations in such abundance that we forget, in the interest of the subordinate details, the general doctrine he is insisting upon. The peculiarities which I have mentioned, form, to the great bulk of readers, the chief charm of these writers. Few minds are fitted for relishing metaphysics, and most of those who read our popular metaphysical writers, derive the greater part of their delight, not from the abstract doctrines they contain, but from the practical remarks, the precepts of conduct, and the delineations of character, which occur in such abundance as to afford sufficient exercise to the mind, without any very close reference to the doctrines in question. Dr. Brown's writings

abound in these beauties ; but they are introduced in such a manner, that no one who reads merely to pass an idle hour, will have any great pleasure in them ; for they are never introduced for their own sake, but merely as the best illustrations of the doctrine he is maintaining. Accordingly, though in some cases his illustrations are as numerous as those of Mr. Stewart, and though they are scarcely less classical and elegant, still the circumstance most prominent in them is their relation to the great whole. The mind of the indolent reader is not allowed to rest upon the subordinate details without any reference to the truths that go before, and the truths that are to follow. Though there is never wanting what will delight the refined taste and the generous heart, still the predominating pleasure must be that which results from the perception of relation ; and where any one is not capable of, or does not relish this pleasure, the works of Dr. Brown can be but imperfectly estimated by him.

This peculiarity of Dr. Brown's style adds much to the precision and satisfactoriness of his reasonings. In Mr. Stewart's writings, example follows example in beautiful and slow succession. This, however, does not always add to the perspicuity of his style, or to the conclusiveness of his reasonings ; for the discursive powers are lulled asleep amidst the pleasing excitation of the other faculties. But the more examples Dr. Brown gives, the clearer do his doctrines become, from the circumstance of the relation of the different parts being that which our attention is always chiefly directed to ; just as the strength of a bridge is increased by every addition of weight. The same objection that has been made to the works of Mr. Stewart, cannot be urged against those of Mr. Hume, as his illustrations are seldom such as to mislead by inte-

resting the feelings. His defect lies in his inability, or in his unwillingness, to state his views systematically. He trusts little to the acuteness, and nothing to the comprehensiveness, of the reader; he therefore illustrates every position, and repeats it in a thousand varied forms. The consequence is, that in perusing any of his speculations, we think we have a clear conception of his doctrines, but when we come to the termination, we find it scarcely possible to give a summary view of what we have been reading. But Dr. Brown himself never loses, or allows us to lose, the general in the particular. In this way, though it requires a greater effort to comprehend any single passage, yet, when once understood, it is infinitely clearer, and more easily remembered. Hume carries us through a tract of country, showing us, at every step, distinctly the way before us, and amusing us with new views and charming prospects.¹ But when we come to the end of our journey, we find that our progress has been little or nothing: we were never at any great distance from the point at which we started: we have been traversing merely a confined spot, and even of it we have had only many beautiful glimpses, but no commanding view. Stewart, again, presents us with a wider and nobler prospect, more beautiful in itself, and richer in local associations. There is every thing to delight the eye, the ear, the imagination, and the heart. But the masses of shade, magnificent though their effect often be, and the warmth of the atmosphere, which is greater than its transparency, leave the features often obscure, and the outline ill defined. Dr. Brown conjures up a scene where there are as many beautiful sights and sounds,

¹ It can scarcely be necessary to remind the reader that I speak only of the charms of his style.

but they are all in one mighty prospect; and lovely as the separate parts are, our attention is chiefly occupied with the relative position of the mountains, and the course of the rivers. He leads us, too, through classic ground, and over spots that have been dignified by acts of heroism and virtue. Still, however, we are continually reminded, that it is the great outlines of the landscape which we have to do with, and not with its individual charms; and while our admiration is excited for those who, on the noble fields of freedom, bled for their friends and their beloved country, we are never allowed to forget that our present object with these noble scenes is only as parts of the great and magnificent landscape whose features we are to trace.

Next to this peculiarity in the manner of bringing forward his doctrines, is the precision of his style. He not only brings out the idea, but the very shade of the idea. He leaves nothing to the imagination of the reader, but goes on limiting and explaining his terms and his positions, till his doctrines stand forth with every outline clearly defined, and every feature finished with laborious exactness. For this purpose his style is eminently abstract. It is not, however, abstract, from being the translation of his ideas into the language of a system, which is too often the characteristic of metaphysical writers; neither is it like the abstractness of those who, when they have to do with a subtle idea, use a general or philosophic term, which does little more than direct the mind of the reader into the proper channel, and is loose and deficient in precision from its very abstractness: his style is abstract, from his stripping his language of all those words that conjure up ideas or feelings merely conventional, and by his using a language of the same

kind that we use in Algebra, which is perfectly general in its own nature, but, from the signs by which it is connected, is at the same time perfectly precise.

There is another peculiarity in the style of Dr. Brown, arising from the great activity and quickness of his mind. This takes away what is called *repose* from his composition. Every sentence—every clause—every term, is instinct with life. “The pauses of his eloquence,” to apply to him a criticism that has been made on the style of another eminent writer, “is filled up by ingenuity. Nothing plain is left in the composition.” Amidst the great activity of all his faculties, however, it is curious to remark, that his power of analysis has still the ascendancy, and gives a colour to all his other powers. Many writers show equal activity of intellect; but as it takes a different direction, the effect is altogether different. Some accumulate illustration upon illustration—they clothe the same idea in different language—they repeat it with increased emphasis—they show it in different lights—they shed upon it the reflected lustre of analogous truths—they adorn it with wit, and in a thousand different ways amuse and relax the mind of the reader. But Dr. Brown is wholly employed in defining and limiting his positions. Having once found out the best point in which any doctrine can be shown, he confines the view to that alone, and his activity is exerted to remove every obstacle that may prevent us from seeing it in that light. As we observed before, he leaves nothing to the imagination of the reader: he is constantly employed in filling up every part, and trusts nothing to a general outline. His taste, his genius, and his wit, are in constant exercise; but they are all under the direction of his reasoning faculty—they are employed solely to convey

more vivid and more precise ideas of the great doctrine. In this way, it is obvious that his writings cannot be understood without a constant exertion of mind, similar in its nature to that made by the author himself. To most readers this is too great an exaction: they delight to repose in generalities: the minor shades of difference appear unimportant to them. When their attention is called to them, they lose sight of the principal distinctions. It has thus always been the fate of subtle writers, that they appear to the great bulk of readers incorrect. People do not believe, because they cannot put themselves to the trouble of comprehending; and it may be asserted without a paradox, that Dr. Brown would have produced a greater effect had he shown less talent, and that his reasoning appears to many inconclusive, because he has left it altogether unanswerable.

As a foil to so many and so great excellencies, it may be allowed that Dr. Brown occasionally shows a preference of what is subtle to what is useful, and is sometimes more ingenious than solid. His style is too abstract, and his illustrations are not always introduced in the manner that might give them most effect. Many quaintnesses both of thought and expression are to be found in his writings. His sentences are often long, sometimes involved; and there is an occasional obscurity, arising from his anxiety to prevent the possibility of misapprehension. He had a perfect mastery over language; but sometimes he lessens the effect by showing that he has this mastery. He too often, perhaps, uses a word in an unexpected sense, and then, by an analysis, shows that the application is just: a species of exquisite but quaint refinement that he learned from the younger Pliny. His diction, however, is idiomatic and pure, to a degree that is

seldom attained by Scottish writers. It may be remarked, in general, that simplicity is the quality in which he is most deficient, as subtlety is that in which he most excels.

To these remarks upon Dr. Brown's character, most of which were written soon after his death, I have nothing more to add. All that was then said, as to his being the first of modern metaphysicians, has been confirmed by public opinion in a manner that I could not have anticipated; the reception of his Lectures has been favourable to a degree of which, in metaphysical works, there is no parallel;¹ and his virtues

¹ To the approbation which has been so generally expressed by the public, there has been one exception, and only one, deserving the name, and that too from a quarter whence least of all it could have been expected.

It was my original intention not to make the remotest allusion to this subject. But it has been repeatedly urged upon me, that, not to notice the attack, would have the appearance of submitting to it as just, and that a regard both to my own character, and still more to that of the illustrious subject of this biography, required that it should be met openly and fully.

Had my own feelings as an individual only been concerned, I should not have been induced to depart from my original purpose of silence; for, sincere though my respect is for many of the qualities of the eminent individual referred to, I can well bear his censure, when I consider how it was incurred, and with whom it is shared.

To the wishes of the admirers of Dr. Brown, however, I am anxious to pay every attention; but I trust that, upon consideration, they may agree with me, that it would be inexpedient to enter into any discussion upon the subject. Had an attempt been made to refute any of Dr. Brown's more important doctrines, the case would have been otherwise. But the mere expression of unfavourable opinion, from however respected a quarter, may be left without argument to the decision of the public, especially when that opinion is neutralized by the different statements which had previously come from the same pen. Besides, upon an occasion like the present, I feel myself bound to follow what I conceive would have

as a man are almost universally allowed to be in beautiful accordance with his talents as a philosopher.

Dr. Brown's character as a philosopher will chiefly rest upon his Lectures. The best proof of the estimation in which they are held by the public, is the circumstance of the present edition being already called for. In my more detailed account of the "Life and Writings of Dr. Brown," I have given a brief outline of what I conceive to be the most valuable of the contributions to the Philosophy of Mind, which his Lectures contain, and ventured to state the grounds upon which I differ from him in some subordinate particulars. I may perhaps take some opportunity of extending my remarks; and though I may have occasion to add some limitations to my expression of agreement in his doctrines, I shall have no limitation to make of my admiration for his wonderful genius. The limits within which I am obliged in this Preface to confine myself, prevents me from entering at all upon the subject.

been Dr. Brown's own wishes. And I am certain that if he could have believed it possible that such an attack could have come from such an individual, his regard for his own reputation as a philosopher would have been forgotten in his concern for the moral fame of his friend, and his most anxious desire would have been, that a veil should be drawn over the subject for ever.

The last reason is paramount with me, and I rejoice that it allows me to dismiss a topic so truly painful. In ordinary cases, the jealousies of authors may afford legitimate matter for amusement and ridicule; but where, in circumstances so sacred, there has been such a melancholy departure from that dignified benignity of temper, and that generous approval of kindred genius which had been exhibited on all former occasions, consecrating a great name to our veneration, and shedding a mild lustre upon the severest pursuits of science, there is room for nothing but mortification and regret.

Who would not laugh if such a man there be,
Who would not weep if Atticus were he ?

I shall merely state, in regard to the present work, that there is the most satisfactory evidence that about seventy of the lectures were written during the first year of Dr. Brown's professorship, and the whole of the remaining lectures in the following season.

In going over his lectures the following year, his own surprise was great to find that he could make but little improvement upon them. He could account for it in no other way than by his mind having been in a state of very powerful excitement. As he continued to read the same lectures till the time of his death, they were printed from his manuscript exactly as he wrote them, without addition or retrenchment.¹

¹ In his preliminary lecture, after his appointment, he introduced, as is usual in such cases, some remarks respecting the circumstances of his appearance, and the character of his predecessors, which, not being applicable but in the first lecture after an appointment, were, in the succeeding years, laid aside. These remarks, though they could not with propriety be introduced into the lectures, are well worthy of being preserved; and I am happy in being able to present them to the reader.

"Two of the most illustrious of my predecessors are yet alive. One of them, long retired from academic labours, in the enjoyment of a repose dignified by old age, and virtue, and literary glory, is known to you perhaps only as an author. Yet the historian of Rome, and the author of the *Essay on Civil Society*, has not trusted his glory to those works alone. In consigning his fame to posterity, he has availed himself of his labours in this place; and, in his *System of Moral and Political Philosophy*, has given to the world a splendid memorial of his academic eminence. Of the impression, however, which his lectures produced on the minds of those who heard them, and of the consequent interest which they attracted to his subject, I can speak only from the report of his friends and pupils.

"It is not so with his illustrious successor, now unfortunately retired from the active exertions of that chair which he so long and so gloriously filled. Of all which he was in this place, I can speak from more than report, — from those feelings which I have shared in common with his whole auditory, and which many of you, probably, have had the happiness to partake. It is impossible for me

Every second page was originally left blank, and many of these alternate pages were afterwards filled with—if, on an occasion like the present, I may be allowed to refer to my own feelings—it is impossible for me to forget the time when I sat where you now sit, and when all the wonders and all the delights of intellectual philosophy were first revealed to me, by that luminous reason, which could have given perspicuity even to the obscurest science, and that eloquence, which must have rendered any science delightful.

“There is in every bosom some love of truth, as there is a love of light in every eye that is capable of vision. But the permanent effect of indifference, or zealous interest, which truth produces in the mind, depends as much on the mode in which knowledge is communicated, as on the knowledge itself. In this respect, science is truly like that common sunshine, to which it has been so often compared. It is not in the mere intensity of light that the charm consists. The chief enchantment is in the diversity of colours into which it flows, adorning every object which it enables us to perceive. And though it would have been no small blessing of nature to have poured light on the eye of man, though all had been one whiteness, distinguishing objects only as more or less brilliant, how much more gracious is her bounty, when she spreads, in inexhaustible profusion of tints, her innumerable blossoms at our feet,—when she can bid us look to the valley, and the rock, and the forest, and the ocean, and the heavens, and enjoy, in all its magnificent varieties, that radiance, from which, in its undivided splendour, the eye must soon have turned away with weariness and pain.

“In this happy art, of throwing, on every subject which he treated, not light alone, but those colours which render light itself enchanting, Mr. Stewart was eminently successful. Yet the great merit of his lectures was something more than this. It was not the mere statement of a series of truths in most lucid order, and the decoration of these with a rich and varied profusion of imagery and appropriate expression, but an eloquence of a higher kind; that eloquence of emotion, the most animating because itself the most animated, to which genius indeed is necessary, but which genius alone is incapable of producing. There are many most profound reasoners who lay down their series of arguments so demonstratively, and yet so coldly, that our assent, which we cannot withhold from them, may almost be said to be reluctant; and there are many most ingenious rhetoricians who know how to adorn whatever they write

new matter. The manuscript contains numerous interlineations; sometimes even four lines are to be found between those which were originally written, though these were not at a considerable distance. Notwithstanding this, they are written with such distinctness, that it is believed that after much care

or say, with ornaments so rich and so faultless, that we almost feel it a sort of injustice not to be delighted with them, and who want nothing to prove them truly eloquent, but the sympathy of those whom they address. Far different was the eloquence of Mr. Stewart. Even in treating of subjects abstract and severe in themselves, it made itself truly felt, as eloquence of the heart. It did not merely convince of truth, but it impressed with the conviction. It assimilated, while the magic lasted, every mind to its own ardour; and thus producing that philosophic spirit, which is better than philosophy, led the mind beyond the mere acquiescence of the moment, to dwell on the subjects which it loved, and examine and discover for itself.

“On the loss which you have suffered, and which the University has suffered, by the retirement of my illustrious colleague, it is unnecessary to enlarge. But there is some comfort in thinking that he is not wholly lost to us; that in his retirement he will continue that great office of instruction, which he began and prosecuted so indefatigably in this place; and that, in his writings, we shall still be partakers of all that eloquence which outlives the moment.

“In the perusal of the works, with which his leisure cannot fail to enrich us, you may truly conceive yourselves as listening to him still; not indeed in a narrow auditory, but with that great audience of mankind, in which, from the long series of generations that are yet to exist, patriots and philosophers are listening with you, inspired and animated to virtue by the same truths with which he instructs, and warms, and purifies his contemporaries. ‘*Neque enim debet operibus ejus obesse, quod vivit. An si inter eos quos nunquam vidimus floruisse, non solum libros ejus, verum etiam imagines conquireremus, ejusdem nunc honor præsentis et gratia quasi satietate languescet? At hoc pravum malignumque est, non admirari hominem admiratione dignissimum, quia videre, alloqui, audire, complecti, nec laudare tantum, verum etiam amare contingit.*’

and attention this edition is printed almost *verbatim et literatim*. As the lectures were not prepared for the press, they do not appear without some of the disadvantages of posthumous publications. There is an awkwardness in some of the forms of expression that immediately presents itself to the eye; though even this has a certain value, as affording evidence of perfect genuineness. The recapitulatory statements also, being intended for the convenience of the auditors for whom the lectures were prepared, are not always to be found where the nature of the subject might suggest. It may be added, that the style occasionally bears the marks of the circumstances in which the author was placed; and the want of the benefit of notes may sometimes be experienced. Some other imperfections might perhaps be mentioned; but they are all of minor importance, and do not in any degree affect the essential excellencies. Indeed, considering the circumstances under which the work appears, it is matter of admiration that the defects should be so trivial; and that lectures, possessing so great and varied merits, should have been printed in the form in which they were prepared for the purposes of academical instruction, without requiring any alteration, is altogether without a parallel. For metaphysical acuteness, profound and liberal views, refined taste, varied learning, and philosophical eloquence, all under the guidance of a spirit breathing the purest philanthropy and piety, they may challenge comparison with any work that was ever published; and though the admirers of Dr. Brown may regret that they should not have received his last corrections, the circumstance is of little real importance either to their value or to his own fame; for it may be safely predicted, that

even in their present form they will always continue a splendid monument of Dr. Brown's academical exertions, and be considered one of the most valuable accessions that was ever made to the Philosophy of Mind.

LECTURES

ON THE

PHILOSOPHY OF THE HUMAN MIND.

LECTURE I.

Introduction.

GENTLEMEN,—The subject, on which we are about to enter, and which is to engage, I trust, a considerable portion of your attention for many months, is *the Philosophy of the Human Mind*,—not that speculative and passive philosophy only, which inquires into the nature of our intellectual part, and the mysterious connexion of this with the body which it animates, but that practical science, which relates to the duties, and the hopes, and the great destiny of man, and which, even in analyzing the powers of his understanding, and tracing all the various modifications of which it is individually susceptible, views it chiefly as a general instrument of good—an instrument by which he may have the dignity of co-operating with his beneficent Creator, by spreading to others the knowledge, and virtue, and happiness which he is qualified at once to enjoy and to diffuse.

“Philosophy,” says Seneca, “is not formed for

artificial show or delight. It has a higher office than to free idleness of its languor, and wear away and amuse the long hours of a day. It is that which forms and fashions the soul, which gives to life its disposition and order, which points out what it is our duty to do, what it is our duty to omit. It sits at the helm, and, in a sea of perils, directs the course of those who are wandering through the waves." "Non est philosophia popolare artificium, nec ostentationi paratum; non in verbis sed in rebus est. Nec in hoc adhibetur ut aliqua oblectatione consumatur dies, ut dematur otio nausea. Animum format et fabricat, vitam disponit, actiones regit, agenda et omittenda demonstrat, sedet ad gubernaculum, et per ancipitia fluctuantium dirigit cursum."¹

Such, unquestionably, is the great practical object of all philosophy. If it increase the happiness and virtue of human kind, it must be allowed to have fulfilled, to human beings, the noblest of earthly ends. The greatness of this primary object, however, perhaps fixed too exclusively the attention of the moral inquirers of antiquity, who, in considering man as capable of virtue and happiness, and in forming nice and subtle distinctions as to his supreme good, and the means by which he might attain it, seem almost to have neglected the consideration of his intellectual nature, as an object of mere physical science. Hence it happens, that, while the systems of ancient philosophy exhibit, in many instances, a dignity of moral sentiment as high, or almost as high, as the unassisted reason of man could be supposed to reach, and the defects of which we perhaps discover only by the aid of that purer light, which was not indulged to them, they

¹ Ep. 16.

can scarcely be said to have left us a single analysis of the complex phenomena of thought and feeling. By some of them, indeed, especially by the Peripatetics and Stoics, much dialectic subtlety was employed in distinctions, that may seem at first to involve such an analysis; but even these distinctions were verbal, or little more than verbal. The analytical investigation of the mind, in all its complexity of perceptions, and thoughts, and emotions, was reserved to form almost a new science in the comprehensive philosophy of far later years.

If, however, during the flourishing periods of Greek and Roman letters, this intellectual analysis was little cultivated, the department of the philosophy of the mind which relates to practical ethics, was enriched, as I have said, by moral speculations the most splendid and sublime. In those ages, indeed, and in countries in which no revealed will of Heaven had pointed out and sanctioned one unerring rule of right, it is not to be wondered at, that, to those who were occupied in endeavouring to trace and ascertain such a rule in the moral nature of man, all other mental inquiries should have seemed comparatively insignificant. It is even pleasing thus to find the most important of all inquiries regarded as truly the most important, and minds of the highest genius, in reflecting on their own constitution, so richly diversified and adorned with an almost infinite variety of forms of thought, discovering nothing, in all this splendid variety, so worthy of investigation, as the conduct which it is fitting for man to pursue.

But another period was soon to follow,—a period in which ages of long and dreary ignorance were to be followed by ages of futile labour, as long and dreary. No beautiful moral speculations were then to com-

pensate the poverty of intellectual science. But morality, and even religion itself, were to be degraded, as little more than technical terms of a cold and unmeaning logic. The knowledge of our mental frame was then, indeed, professedly cultivated with most assiduous zeal; and if much technical phraseology, and much contention, were sufficient to constitute or elaborate science, that assiduous zeal might well deserve to have been rewarded with so honourable a name. But what reasonable hope of a progress truly scientific could be formed, when to treat of the philosophy of mind was to treat of every thing but of the mind and its affections; when some of the most important questions, with respect to it, were, Whether its essence were distinct from its existence? whether its essence therefore might subsist, when it had no actual existence? and what were all the qualities inherent in it as a nonentity? In morals, whether ethics were an art or a science? whether, if the mind have freedom of choice, this independent will be an entity or a quiddity? and whether we should say, with a dozen schoolmen, that virtue is good, because it has intrinsic goodness, or, with a dozen more, that it has this intrinsic goodness, because it is good?

In natural theology, questions of equal moment were contested with equal keenness and subtlety; but they related less to the Deity, of whose nature, transcendent as it is, the whole universe may be considered as in some degree a faint revelation, than to those spiritual ministers of his power, of whose very existence nature affords no evidence, and of whom revelation itself may be said to teach us little but the mere existence. Whether angels pass from one point of space to another, without passing through the intermediate points? whether they can visually dis-

cern objects in the dark? whether more than one can exist at the same moment in the same physical point? whether they can exist in a perfect vacuum, with any relation to the absolute incorporeal void? and whether, if an angel were in vacuo, the void could still truly be termed perfect?—Such, or similar to these, were the great inquiries in that department of Natural Theology, to which, as to a separate science, was given the name of Angelography; and of the same kind were the principal inquiries with respect to the Deity himself, not so much an examination of the evidence which nature affords of his self-existence, and power, and wisdom, and goodness,—those sublime qualities which even our weakness cannot contemplate without deriving some additional dignity from the very greatness which it adores,—as a solution of more subtle points, whether he exist in imaginary space as much as in the space that is real? whether he can cause a mode to exist without a substance? whether, in knowing all things, he knows universals, or only things singular? and whether he love a possible unexisting angel better than an actually existing insect.

“Indignandum de isto, non disputandum est.”—
 “Sed non debuit hoc nobis esse propositum arguta disserere,¹ et philosophiam in has angustias ex sua majestate detrahere. Quanto satius est, ire aperta via et recta, quam sibi ipsi flexus disponere, quos cum magna molestia debeas relegere?”²—“Why waste ourselves,” says the same eloquent moralist; “why torture and waste ourselves in questions, which there is more real subtlety in despising than in solving?”—“Quid te torques et maceras, in ea quæstione quam subtilius est contempsisse quam solvere?”³

¹ Argutias serere. *Lect. var.* ² Seneca, Ep. 102. ³ Ib. 49.

From the necessity of such inquiries we are now fortunately freed. The frivolous solemnities of argument, which, in the disputations of Scotists and Thomists, and the long controversy of the believers and rejecters of the universal *a parte rei*, rendered human ignorance so very proud of its temporary triumphs over human ignorance, at length are hushed for ever; and, so precarious is all that glory, of which men are the dispensers, that the most subtle works, which for ages conferred on their authors a reverence more than praise, and almost worship, would now scarcely find a philosophic adventurer so bold as to avow them for his own.

The progress of intellectual philosophy may indeed, as yet, have been less considerable than was to be hoped under its present better auspices. But it is not a little to have escaped from a labyrinth so very intricate, and so very dark, even though we should have done nothing more than advance into sunshine and an open path, with a long journey of discovery still before us. We have at last arrived at the important truth, which now seems so very obvious a one, that the mind is to be known best by observation of the series of changes which it presents, and of all the circumstances which precede and follow these; that, in attempting to explain its phenomena, therefore, we should know what those phenomena are; and that we might as well attempt to discover, by logic, unaided by observation or experiment, the various coloured rays that enter into the composition of a sunbeam, as to discover, by dialectic subtleties, *a priori*, the various feelings that enter into the composition of a single thought or passion.

[The mind, it is evident, may, like the body to which it is united, or the material objects which

surround it, be considered simply as a substance possessing certain qualities, susceptible of various affections or modifications, which, existing successively as momentary states of the mind, constitute all the phenomena of thought and feeling. The general circumstances in which these changes of state succeed each other, or, in other words, the laws of their succession, may be pointed out, and the phenomena arranged in various classes, according as they may resemble each other, in the circumstances that precede or follow them, or in other circumstances of obvious analogy. There is, in short, a science that may be termed mental physiology, as there is another science relating to the structure and offices of our corporeal frame, to which the term physiology is more commonly applied; and as, by observation and experiment, we endeavour to trace those series of changes which are constantly taking place in our material part, from the first moment of animation to the moment of death; so, by observation, and in some measure also by experiment, we endeavour to trace the series of changes that take place in the mind, fugitive as these successions are, and rendered doubly perplexing by the reciprocal combinations into which they flow. The innumerable changes, corporeal and mental, we reduce, by generalizing, to a few classes; and we speak, in reference to the mind, of its faculties or functions of perception, memory, reason, as we speak, in reference to the body, of its functions of respiration, circulation, nutrition. This mental physiology, in which the mind is considered simply as a substance endowed with certain susceptibilities, and variously affected or modified in consequence, will demand of course our first inquiry; and I trust that the intellectual analyses, into which we shall be led by it, will

afford results that will repay the labour of persevering attention, which they may often require from you.

In one very important respect, however, the inquiries, relating to the physiology of mind, differ from those which relate to the physiology of our animal frame. If we could render ourselves acquainted with the intimate structure of our bodily organs, and all the changes which take place, in the exercise of their various functions, our labour, with respect to them, might be said to terminate. But though our intellectual analysis were perfect, so that we could distinguish, in our most complex thought or emotion, its constituent elements, and trace with exactness the series of simpler thoughts which have progressively given rise to them, other inquiries, equally or still more important, would remain. We do not know all which is to be known of the mind when we know all its phenomena, as we know all which can be known of matter, when we know the appearances which it presents, in every situation in which it is possible to place it, and the manner in which it then acts or is acted upon by other bodies. When we know that man has certain affections and passions, there still remains the great inquiry, as to the propriety or impropriety of those passions, and of the conduct to which they lead. We have to consider, not merely how he is capable of acting, but also, whether, acting in the manner supposed, he would be fulfilling a duty or perpetrating a crime. Every enjoyment which man can confer on man, and every evil which he can reciprocally inflict or suffer, thus become objects of two sciences—first, of that intellectual analysis which traces the happiness and misery, in their various forms and sequences, as mere phenomena or states of the substance mind;—and secondly, of that ethical judg-

ment, which measures our approbation and disapprobation, estimating, with more than judicial scrutiny, not merely what is done, but what is scarcely thought in secrecy and silence, and discriminating some element of moral good or evil, in all the physical good and evil, which it is in our feeble power to execute, or in our still frailer heart to conceive and desire.

To this second department of inquiry belong the doctrines of general ethics.

But, though man were truly impressed with the great doctrine of moral obligation, and truly desirous, in conformity with it, of increasing, as far as his individual influence may extend, the sum of general happiness, he may still err in the selection of the means which he employs for this benevolent purpose. So essential is knowledge, if not to virtue, at least to all the ends of virtue, that, without it, benevolence itself, when accompanied with power, may be as destructive and desolating as intentional tyranny; and, notwithstanding the great principles of progression in human affairs, the whole native vigour of a state may be kept down for ages, and the comfort, and prosperity, and active industry of unexisting millions be blasted by regulations which, in the intention of their generous projectors, were to stimulate those very energies which they repressed, and to relieve that very misery which they rendered irremediable. It therefore becomes an inquiry of paramount importance, what are the means best calculated for producing the greatest amount of social good? By what ordinances would public prosperity, and all the virtues which not merely adorn that prosperity, but produce it, be most powerfully excited and maintained? This political department of our science, which is in

truth only a subdivision, though a very important one, of general practical ethics, comprehends, of course, the inquiries as to the relative advantages of different forms of government, and the expediency of the various contrivances which legislative wisdom may have established, or may be supposed to establish, for the happiness and defence of nations.

The inquiries, to which I have as yet alluded, relate to the mind, considered simply as an object of physiological investigation; or to man, considered in his moral relations to a community, capable of deriving benefit from his virtues and knowledge, or of suffering by his errors and his crimes. But there is another more important relation in which the mind is still to be viewed—that relation which connects it with the Almighty Being to whom it owes its existence. Is man, whose frail generations begin and pass away, but one of the links of an infinite chain of beings like himself, uncaused, and co-eternal with that self-existing world of which he is the feeble tenant? or, Is he the offspring of an all-creating Power, that adapted him to nature, and nature to him,—formed, together with the magnificent scene of things around him, to enjoy its blessings, and to adore, with the gratitude of happiness, the wisdom and goodness from which they flow? What attributes, of a Being so transcendent, may human reason presume to explore? and, What homage will be most suitable to his immensity and our nothingness? Is it only for an existence of a few moments, in this passing scene, that he has formed us? or, Is there something within us, over which death has no power; something that prolongs and identifies the consciousness of all which we have done on earth, and that, after the mortality of the body, may yet be a subject of the moral government

of God? When compared with these questions, even the sublimest physical inquiries are comparatively insignificant. They seem to differ, as it has been said, in their relative importance and dignity, almost as philosophy itself differs from the mechanical arts that are subservient to it. "*Quantum inter philosophiam interest et cæteras artes; tantum interesse existimo in ipsa philosophia, inter illam partem quæ ad homines, et hanc quæ ad Deos spectat. Altior est hæc et animosior: multum permisit sibi; non fuit oculis contenta. Majus esse quiddam suspicata est, ac pulchrius, quod extra conspectum natura posuisset.*"¹ It is when ascending to these sublimer objects, that the mind seems to expand, as if already shaking off its earthly fetters, and returning to its source: and it is scarcely too much to say, that the delight which it thus takes in things divine is an internal evidence of its own divinity. "*Cum illa tetigit, alitur, crescit; ac, velut vinculis liberatus, in originem redit. Et hoc habet argumentum divinitatis suæ, quod illum divina delectant.*"

I have thus briefly sketched the various important inquiries, which the philosophy of mind, in its most extensive sense, may be said to comprehend. The nature of our spiritual being, as displayed in all the phenomena of feeling and thought; the ties which bind us to our fellow men, and to our Creator; and the prospect of that unfading existence, of which life is but the first dawning gleam; — such are the great objects to which, in the department of your studies committed to my charge, it will be my office to guide your attention and curiosity. The short period of

¹ Seneca Nat. Quæst. Lib. 1. Præf.

the few months to which my course is necessarily limited, will not, indeed, allow me to prosecute, with such full investigation as I should wish, every subject that may present itself in so various a range of inquiry. But even these few months, I flatter myself, will be sufficient to introduce you to all which it is most important for you to know in the science, and to give such lights as may enable you, in other hours, to explore, with success, the prospects that here, perhaps, may only have opened on your view. It is not, I trust, with the labours of a single season that such inquiries, on your part, are to terminate. Amid the varied occupations and varied pleasures of your future years, — in the privacy of domestic enjoyment, as much as in the busier scenes of active exertion, — the studies on which you are about to enter must often rise to you again with something more than mere remembrance; because there is nothing that can give you interest, in any period or situation of your life, to which they are not related. The science of mind is the science of yourselves; of all who surround you; of every thing which you enjoy or suffer, or hope or fear: so truly the science of your very being, that it will be impossible for you to look back on the feelings of a single hour, without constantly retracing phenomena that have been here, to a certain extent, the subjects of your analysis and arrangement. The thoughts and faculties of your own intellectual frame, and all which you admire as wonderful in the genius of others; the moral obligation, which, as obeyed or violated, is ever felt by you with delight or with remorse; the virtues, of which you think as often as you think of those whom you love; and the vices, which you view with abhorrence, or with pity; the traces of divine goodness, which never can be absent

from your view, because there is no object in nature which does not exhibit them ; the feeling of your dependence on the gracious Power that formed you ; and the anticipation of a state of existence more lasting than that which is measured by the few beatings of a feeble pulse ; these, in their perpetual recurrence, must often recall to you the inquiries that, in this place, engaged your early attention. It will be almost as little possible for you to abandon wholly such speculations, as to look on the familiar faces of your home with a forgetfulness of every hour which they have made delightful, or to lose all remembrance of the very language of your infancy, that is every moment sounding in your ears.

Though I shall endeavour, therefore, to give as full a view as my limits will permit, of all the objects of inquiry which are to come before us, it will be my chief wish to awake in you, or to cherish, a love of these sublime inquiries themselves. There is a philosophic spirit which is far more valuable than any limited acquirements of philosophy ; and the cultivation of which, therefore, is the most precious advantage that can be derived from the lessons and studies of many academic years : — a spirit, which is quick to pursue whatever is within the reach of human intellect ; but which is not less quick to discern the bounds that limit every human inquiry, and which, therefore, in seeking much, seeks only what man may learn : — which knows how to distinguish what is just in itself from what is merely accredited by illustrious names ; adopting a truth which no one has sanctioned, and rejecting an error of which all approve, with the same calmness as if no judgment were opposed to its own : — but which, at the same time, alive, with congenial feeling, to every intellectual excellence, and candid to

the weakness from which no excellence is wholly privileged, can dissent and confute without triumph, as it admires without envy; applauding gladly whatever is worthy of applause in a rival system, and venerating the very genius which it demonstrates to have erred.

Such is that philosophic temper to which, in the various discussions that are to occupy us, it will be my principal ambition to form your minds; with a view not so much to what you are at present, as to what you are afterwards to become. You are now, indeed, only entering on a science, of which, by many of you, perhaps, the very elements have never once been regarded as subjects of speculative inquiry. You have much, therefore, to learn, even in learning only what others have thought. But I should be unwilling to regard you as the passive receivers of a system of opinions, content merely to remember whatever mixture of truths and errors may have obtained your easy assent. I cannot but look to you in your maturer character, as yourselves the philosophers of other years; as those who are, perhaps, to add to science many of its richest truths, which as yet are latent to every mind, and to free it from many errors, in which no one has yet suspected even the possibility of illusion. The spirit which is itself to become productive in you, is, therefore, the spirit which I wish to cultivate; and happy, as I shall always be, if I succeed in conveying to you that instruction which it is my duty to communicate, I shall have still more happiness if I can flatter myself, that, in this very instruction, I have trained you to habits of thought, which may enable you to enrich, with your own splendid discoveries, the age in which you live, and to be yourselves the instructors of all the generations that are to follow you.

LECTURE II.

Relation of the Philosophy of Mind to the Sciences.

IN my former Lecture, Gentlemen, I gave you a slight sketch of the departments into which the philosophy of mind divides itself, comprehending, in the *first* place, The physiology of the mind, considered as a substance capable of the various modifications, or states, which constitute, as they succeed each other, the phenomena of thought and feeling; *secondly*, The doctrines of general ethics, as to the obligation, under which man lies, to increase and extend, as widely as possible, the happiness of all that live; *thirdly*, The political doctrines as to the means which enable him, in society with his fellow-men, to further most successfully, and with the least risk of future evil, that happiness of all, which it is the duty of each, individually, to wish and to promote; and, *fourthly*, The doctrines of natural theology, as to the existence and attributes of the greatest of Beings, under whose moral government we live, and the foundations of our confidence that death is only a change of scene, which, with respect to our mortality indeed, may be said to be its close; but which, with respect to the soul itself, is only one of the events of a life that is everlasting.

Of these great divisions of our subject, the physiology of the mind, or the consideration of the regular series of phenomena which it presents, simply as states or affections of the mind, is that to which we are first to turn our attention. But, before entering on it, it may be useful to employ a few Lectures in illustrating the advantages which the study of the mind

affords, and the principles of philosophizing, in their peculiar application to it,—subjects which, though of a general kind, will, I trust, leave an influence that will be felt in all the particular inquiries in which we are to be engaged; preparing you, both for appreciating better the importance of those inquiries, and for prosecuting them with greater success.

One very obvious distinction of the physical investigations of mind and matter is that in intellectual science, the materials or instruments with which we are to be engaged, are the same. It is the faculties of perception, comparing, and classifying. In the physics of matter, it observes, compares, and arranges. The world is that of a world, which, though connected with the mind by many wonderful relations of reciprocal agency, still exists independently of it,—a world that presents its phenomena only in circumstances, over most of which we have no control, and over others a control that is partial and limited. The comparative facility, as to all external circumstances, attending the study of the mental phenomena, is unquestionably an advantage of no small moment. In every situation in which man can be placed, as long as his intellectual faculties are unimpaired, it is impossible that he should be deprived of opportunities of carrying on this intellectual study; because, in every situation in which he can be placed, he must still have with him that universe of thought, which is the true home and empire of the mind. No costly apparatus is requisite—no tedious waiting for seasons of observation. He has but to look within himself to find the elements which he has to put together, or the compounds which

he has to analyze, and the instruments that are to perform the analysis or composition.

It was not, however, to point out to you the advantage which arises to the study of our mental frame, from the comparative facility as to the circumstances attending it, that I have led your attention to the difference, in this respect, of the physics of mind and matter. It was to show, what is of much more importance, — how essential a right view of the science of mind is to every other science, even to those sciences which superficial thinkers might conceive to have no connexion with it; and how vain it would be to expect, that any branch of the physics of mere matter could be cultivated to its highest degree of accuracy and perfection, without a due acquaintance with the nature of that intellectual medium, through which alone the phenomena of matter become visible to us, and of those intellectual instruments, by which the objects of every science, and of every science alike, are measured, and divided, and arranged. We might almost as well expect to form an accurate judgment as to the figure, and distance, and colour of an object, at which we look through an optical glass, without paying any regard to the colour and refracting power of the lens itself. The distinction of the sciences and arts, in the sense in which these words are commonly understood, is as just as it is familiar; but it may be truly said, that, in relation to our power of discovery, science is itself an art, or the result of an art. Whether, in this most beautiful of processes, we regard the mind as the instrument or the artist, it is equally that by which all the wonders of speculative or practical knowledge are evolved. It is an agent operating in the production of new results, and employing for this purpose the known laws of thought, in the same manner as, on other occasions, it employs

the known laws of matter. The objects, to which it may apply itself, are indeed various, and, as such, give to the sciences their different names. But, though the objects vary, the observer and the instrument are continually the same. The limits of the powers of this mental instrument, are not the limits of its powers alone; they are also the only real limits, within which every science is comprehended. To the extent which it allows, all those sciences, physical or mathematical, and all the arts which depend on them, may be improved; but, beyond this point, it would be vain to expect them to pass; or rather, to speak more accurately, the very supposition of any progress beyond this point would imply the grossest absurdity; since human science can be nothing more than the result of the direction of human faculties to particular objects. To the astronomer, the faculty by which he calculates the disturbing forces that operate on a satellite of Jupiter, in its revolution round its primary planet, is as much an instrument of his art, as the telescope by which he distinguishes that almost invisible orb; and it is as important, and surely as interesting, to know the real power of the intellectual instrument, which he uses, not for calculations of this kind only, but for all the speculative and moral purposes of life, as it can be to know the exact power of that subordinate instrument, which he uses only for his occasional survey of the heavens.

To the philosophy of mind, then, every speculation, in every science, may be said to have relation as to a common centre. The knowledge of any quality of matter, in the whole wide range of physics, is not itself a phenomenon of matter, more than the knowledge of any of our intellectual or moral affections; it is truly, in all its stages of conjecture, comparison, doubt, belief, a phenomenon of mind; or, in other

words, it is only the mind itself existing in a certain state. The inanimate bodies around us might, indeed, exhibit the same changes as at present, though no mind had been created. But science is not the existence of these inanimate bodies ; it is the principle of thought itself variously modified by them, which, as it exists in certain states, constitutes that knowledge which we term astronomy ; in certain other states, that knowledge which we term chemistry ; in other states our physiology, corporeal or mental, and all the other divisions and subdivisions of science. It would surely be absurd to suppose, that the mixture of acids and alkalies constitutes chemistry, or that astronomy is formed by the revolution of planets round a sun. Such phenomena, the mere objects of science, are only the occasions on which astronomy and chemistry arise in the mind of the inquirer, Man. It is the mind which perceives bodies, which reasons on their apparent relations, which joins them in thought as similar, however distant they may be in space, or separates them in thought as dissimilar, though apparently contiguous. These perceptions, reasonings, and classifications of the mind must, of course, be regulated by the laws of mind, which mingle in their joint result with the laws of matter. It is the object indeed which affects the mind when sentient ; but it is the original susceptibility of the mind itself which determines and modifies the particular affection, very nearly, if I may illustrate what is mental by so coarse an image, as the impression which a seal leaves on melted wax depends, not on the qualities of the wax alone, or of the seal alone, but on the softness of the one, and the form of the other. Change the external object which affects the mind in any case, and we all know that the affection of the mind will be different.

It would not be less so, if, without any change of object, there could be a change in the mere feeling, whatever it might be, which would result from that different susceptibility, becoming instantly as different, as if not the mind had been altered, but the object which it perceived. There is no physical science, therefore, in which the laws of mind are not to be considered together with the laws of matter; and a change in either set of laws would equally produce a change in the nature of the science itself.

If, to take one of the simplest of examples, the mind had been formed susceptible of all the modifications which it admits at present, with the single exception of those which it receives on the presence of light, of how many objects and powers in nature, which we are now capable of distinguishing, must we have remained in absolute ignorance! But would this comparative ignorance of many objects be the only effect of such a change of the laws of mind as I have supposed? Or rather, is it not equally certain, that this simple change alone would be sufficient to alter the very nature of the limited science of which the mind would still be capable, as much as it narrowed its extent? Science is the classification of relations; varying, therefore, in every case, as the relations observed are different; and how very differently should we, in such circumstances, have classed the few powers of the few objects, which might still have become known to us, since we could no longer have classed them according to any of those visual relations, which are always the most obvious and prominent. It is even, perhaps, an extravagant supposition, that a race of the blind, unless endowed with some other sense to compensate the defect of sight, could have acquired so much command of the common arts of life, or so much

science of any sort, as to preserve themselves in existence. But though all this, by a very strong license of supposition, were taken for granted, it must surely be admitted, that the knowledge which man could in those circumstances acquire, would be not merely less in degree, but would be as truly different from that which his powers at present have reached, as if the objects of his science, or the laws which regulate them, had themselves been changed to an extent at least as great as the supposed change in the laws of mind. The astronomy of the blind, if the word might still be used to express a science so very different from the present, would, in truth, be a sort of chemistry. Day and night, the magnificent and harmonious revolution of season after season, would be nothing more than periodical changes of temperature in the objects around; and that great dispenser of the seasons, the source of light, and beauty, and almost of animation, at whose approach nature seems not merely to awake, but to rise again, as it was at first, from the darkness of its original chaos, if its separate existence could be at all inferred, would probably be classed as something similar, though inferior in power, to that unknown source of heat, which, by a perilous and almost unknown process, was fearfully piled and kindled on the household hearth.

So accustomed are we, however, to consider the nature and limits of the different sciences, as depending on the objects themselves, and not on the laws of the mind, which classes their relations, that it may be difficult for you at first to admit the influence of these mere laws of mind, as modifying general physics, at least to the extent which I have now stated. But, that a change in the laws of human thought, whatever influence it might have in altering the very nature and

limits of the physical sciences, would at least affect greatly the state of their progress, must be immediately evident to those who consider for a moment on what discovery depends; the progress of science being obviously nothing more than a series of individual discoveries, and the number of discoveries varying with the powers of the individual intellect. The same phenomena which were present to the mind of Newton, had been present, innumerable times before, not to the understandings of philosophers only, but to the very senses of the vulgar. Every thing was the same to him and to them, except the observing and reasoning mind. To him alone, however, they suggested those striking analogies, by which, on a comparison of all the known circumstances in both, he ventured to class the force which retains the planets in their orbits, with that which occasions the fall of a pebble to the earth.

Have ye not listen'd, while he bound the suns
And planets to their spheres! the unequal task
Of human kind till then. Oft had they roll'd
O'er erring man the year, and oft disgraced
The pride of schools.

—He took his ardent flight
Through the blue infinite; and every star
Which the clear concave of a winter's night
Pours on the eye, or astronomic tube,
Far-stretching, snatches from the dark abyss,
Or such as farther in successive skies
To fancy shine alone, at his approach
Blazed into suns, the living centre each
Of an harmonious system; all combined,
And ruled unerring by that single power
Which draws the stone projected to the ground.¹

It is recorded of this almost superhuman genius,

¹ Thomson's poem on the death of Sir Isaac Newton.

whose powers and attainments at once make us proud of our common nature, and humble us with our disparity, that, in acquiring the elements of geometry, he was able, in a very large proportion of cases, to pass immediately from theorem to theorem, by reading the mere enunciation of each; perceiving, as it were intuitively, that latent evidence, which others are obliged slowly to trace through a long series of propositions. When the same theorem was enunciated, or the same simple phenomenon observed, the successions of thought, in his mind, were thus obviously different from the successions of thought in other minds; but it is easy to conceive the original susceptibilities of all minds such as exactly to have corresponded with those of the mind of Newton. And if the minds of all men, from the creation of the world, had been similar to the mind of Newton, is it possible to conceive, that the state of any science would have been, at this moment, what it now is, or in any respect similar to what it now is, though the laws which regulate the physical changes in the material universe had continued unaltered, and no change occurred, but in the simple original susceptibilities of the mind itself?

The laws of the observing and comparing mind, then, it must be admitted, have modified, and must always continue to modify, every science, as truly as the laws of that particular department of nature of which the phenomena are observed and compared. But it may be said,—We are chemists, we are astronomers, without studying the philosophy of mind. And true it certainly is, that there are excellent astronomers, and excellent chemists, who have never paid any peculiar attention to intellectual philosophy. The general principles of philosophizing, which a more accurate intellectual philosophy had introduced, have

become familiar to them without study. But those general principles are not less the effect of that improved philosophy of mind, any more than astronomy and chemistry themselves have now a less title to be considered as sciences; because, from the general diffusion of knowledge in society, those who have never professedly studied either science, are acquainted with many of their most striking truths. It is gradually, and almost insensibly, that truths diffuse themselves. At first admired and adopted by a few, who are able to compare the present with the past, and who gladly own them, as additions to former knowledge; from them communicated to a wider circle, who receive them without discussion, as if familiar and long known; and at length, in this widening progress, becoming so nearly universal, as almost to seem effects of a natural instinctive law of human thought; like the light, which we readily ascribe to the sun, as it first flows directly from him, and forces his image on our sight, but which, when reflected from object to object, soon ceases to remind us of its origin, and seems almost to be a part of the very atmosphere which we breathe.

I am aware, that it is not to improvements in the mere philosophy of mind, that the great reformation in our principles of physical inquiry is commonly ascribed. Yet it is to this source, certainly at least to this source chiefly, that I would refer the origin of those better plans of philosophical investigation which have distinguished with so many glorious discoveries the age in which we live, and the ages immediately preceding. When we think of the great genius of Lord Bacon, and of the influence of his admirable works, we are too apt to forget the sort of difficulties which his genius must have had to overcome, and to

look back to his rules of philosophizing, as a sort of ultimate truths, discoverable by the mere perspicacity of his superior mind, without referring them to those simple views of nature, in relation to our faculties of discovery, from which they were derived. The rules which he gives us, are rules of physical investigation ; and it is very natural for us, therefore, in estimating their value, to think of the erroneous physical opinions which preceded them, without paying sufficient attention to the false theories of intellect which had led to those very physical absurdities. Lord Bacon, if he was not the first who discovered that we were in some degree idolaters, to use his own metaphor, in our intellectual worship, was certainly the first who discovered the extent of our idolatry. But we must not forget, that the temple which he purified was not the temple of external nature, but the temple of the mind ; that in its inmost sanctuaries were all the idols which he overthrew ; and that it was not till these were removed, and the intellect prepared for the presence of a nobler divinity, that Truth would deign to unveil herself to adoration ; as in the mysteries of those Eastern religions, in which the first ceremony for admission to the worship of the god is the purification of the worshipper.

In the course of our analysis of the intellectual phenomena, we shall have frequent opportunities of remarking the influence which errors, with respect to these mere phenomena of mind, must have had, on the contemporary systems of general physics, and on the spirit of the prevailing plans of inquiry. It may be enough to remark at present the influence of one fundamental error, which, as long as it retained its hold of the understanding, must have rendered all its energies ineffectual, by wasting them in the search of

objects which it never could attain, because in truth they had no real existence,—to the neglect of objects, that would have produced the very advantage which was sought. I allude to the belief of the schools, in the separate existence, or entity as they technically termed it, of the various orders of universals, and the mode in which they conceived every acquisition of knowledge in reasoning, to take place, by the intervention of certain intelligible forms or species, existing separately in the intellect, as the direct objects of thought; in the same manner as they ascribed simple perception to the action of species of another order, which they termed sensible species,—the images of things derived indeed from objects without, but, when thus derived, existing independently of them. When we amuse ourselves with inquiring into the history of human folly—that most comprehensive of all histories—which includes, at least for many ages, the whole history of philosophy; or rather, to use a word more appropriate than amusement, when we read with regret the melancholy annals of genius aspiring to be pre-eminently frivolous, and industry labouring to be ignorant,—we often discover absurdities of the grossest kind, which almost cease to be absurdities, on account of other absurdities, probably as gross, which accompany them; and this is truly the case, in the grave extravagance of the logic of the schools. The scholastic mode of philosophizing, ridiculous as it now seems, was far from absurd, when taken in connexion with the scholastic philosophy. It was indeed the only mode of procedure which that philosophy could consistently admit. To those who believed that singular objects could afford no real knowledge, *singularium nullam dari scientiam*; and that this was to be obtained only from what they termed intelligible

species, existing not in external things, but in the intellect itself, — it must have seemed as absurd to wander, in quest of knowledge, out of that region in which alone they supposed it to exist, and to seek it among things singular, as it would now, to us, seem hopeless and absurd to found a system of physical truths on the contemplation and comparison of universals. While this false theory of the mental phenomena prevailed, was it possible, that the phenomena of matter should have been studied on sounder principles of investigation, when any better plan must have been absolutely inconsistent with the very theory of thought? It was in mind that the student of general nature was to seek his guiding light, without which all then was darkness. The intellectual philosopher, if any such had then arisen, to analyze simply the phenomena of thought, without any reference to general physics, would in truth have done more in that dark age, for the benefit of every physical science, than if he had discovered a thousand properties of as many different substances.

Let us suppose, for a moment, that an accurate view of the intellectual process of abstraction could have been communicated to a veteran sage of the schools, at the very moment when he was intently contemplating the tree of Porphyry, in all its branches of species and genera, between the individual and the *summum genus*; and when he was preparing, perhaps, by this contemplation of a few universals, to unfold all the philosophy of colours, or of the planetary movements, — would the benefit which he received from this clearer view of a single process of thought, have terminated in the mere science of mind; or would not rather his new views of mind have extended, with a most important influence, to his whole wide views of matter?

views of the faculties employed in every physical inquiry?

That we are not aware of any such influence, argues nothing; for, to suppose us aware of it, would be to suppose us acquainted with the very errors which mislead us. Aquinas and Scotus, it is to be presumed, and all their contentious followers, conceived themselves as truly in the right path of physical investigation, as we do at this moment; and, though we are free from their gross mistakes, there may yet be others of which we are the less likely to divest ourselves, from not having as yet the slightest suspicion of their existence. The question is not, Whether our method of inquiry be juster than theirs?—for, of our superiority in this respect, if any evidence of fact were necessary, the noble discoveries of these later years are too magnificent a proof to allow us to have any doubt; but, Whether our plan of inquiry may not still be susceptible of improvements, of which we have now as little foresight, as the Scotists and Aquinists of the advantages which philosophy has received from the general prosecution of the inductive method? There is, indeed, no reason now to fear, that the observation of particular objects, with a view to general science, will be despised as incapable of giving any direct knowledge, and all real science be confined to universals. *Singularium datur scientia.* But, though a sounder view of one intellectual process may have banished from philosophy much idle contention, and directed inquiry to fitter objects, it surely does not therefore follow, that subsequent improvements in the philosophy of mind are to be absolutely unavailing. On the contrary, the presumption unquestionably is, that if, by understanding better the simple process of abstraction, we have freed ourselves

He must immediately have learned, that, in the whole tree of genera and species, the individual at the bottom of his scale was the only real independent existence, and that all the rest, the result of certain comparisons of agreement or disagreement, were simple modifications of his own mind, not produced by any thing existing in his intellect, but by the very constitution of his intellect itself; the consideration of a number of individuals as of one species being nothing more than the feeling of their agreement in certain respects, and the feeling of this agreement being as simple a result of the observation of them together, as the perception of each, individually, was of its individual presence. It would surely have been impossible for him, with this new and important light, to return to his transcendental inquiries into entities, and quiddities, and substantial forms; and the simple discovery of a better theory of abstraction, as a process of the mind, would thus have supplied the place of many rules of philosophizing.

The philosophy of mind, then, we must admit, did, in former ages at least, exercise an important influence on general science; and are we to suppose that it has now no influence?

Even though no other advantage were to be obtained from our present juster views of mind, than the protection which they give, from those gross errors of inquiry to which the philosophers of so long a series of ages were exposed, this alone would surely be no slight gain. But, great as this advantage is, are we certain, that it is all which the nicest mental analysis can afford; or rather, is it not possible at least, that we may still, in our plans of physical investigation, be suffering under the influence of errors from which we should be saved, by still juster

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In the course of our analysis of the intellectual phenomena, we shall have frequent opportunities of remarking the influence which errors, with respect to these mere phenomena of mind, must have had, on the contemporary systems of general physics, and on the spirit of the prevailing plans of inquiry. It may be enough to remark at present the influence of one fundamental error, which, as long as it retained its hold of the understanding, must have rendered all its energies ineffectual, by wasting them in the search of

objects which it never could attain, because in truth they had no real existence,—to the neglect of objects, that would have produced the very advantage which was sought. I allude to the belief of the schools, in the separate existence, or entity as they technically termed it, of the various orders of universals, and the mode in which they conceived every acquisition of knowledge in reasoning, to take place, by the intervention of certain intelligible forms or species, existing separately in the intellect, as the direct objects of thought; in the same manner as they ascribed simple perception to the action of species of another order, which they termed sensible species,—the images of things derived indeed from objects without, but, when thus derived, existing independently of them. When we amuse ourselves with inquiring into the history of human folly—that most comprehensive of all histories—which includes, at least for many ages, the whole history of philosophy; or rather, to use a word more appropriate than amusement, when we read with regret the melancholy annals of genius aspiring to be pre-eminently frivolous, and industry labouring to be ignorant,—we often discover absurdities of the grossest kind, which almost cease to be absurdities, on account of other absurdities, probably as gross, which accompany them; and this is truly the case, in the grave extravagance of the logic of the schools. The scholastic mode of philosophizing, ridiculous as it now seems, was far from absurd, when taken in connexion with the scholastic philosophy. It was indeed the only mode of procedure which that philosophy could consistently admit. To those who believed that singular objects could afford no real knowledge, *singularium nullam dari scientiam*; and that this was to be obtained only from what they termed intelligible

species, existing not in external things, but in the intellect itself, — it must have seemed as absurd to wander, in quest of knowledge, out of that region in which alone they supposed it to exist, and to seek it among things singular, as it would now, to us, seem hopeless and absurd to found a system of physical truths on the contemplation and comparison of universals. While this false theory of the mental phenomena prevailed, was it possible, that the phenomena of matter should have been studied on sounder principles of investigation, when any better plan must have been absolutely inconsistent with the very theory of thought? It was in mind that the student of general nature was to seek his guiding light, without which all then was darkness. The intellectual philosopher, if any such had then arisen, to analyze simply the phenomena of thought, without any reference to general physics, would in truth have done more in that dark age, for the benefit of every physical science, than if he had discovered a thousand properties of as many different substances.

Let us suppose, for a moment, that an accurate view of the intellectual process of abstraction could have been communicated to a veteran sage of the schools, at the very moment when he was intently contemplating the tree of Porphyry, in all its branches of species and genera, between the individual and the *summum genus*; and when he was preparing, perhaps, by this contemplation of a few universals, to unfold all the philosophy of colours, or of the planetary movements, — would the benefit which he received from this clearer view of a single process of thought, have terminated in the mere science of mind; or would not rather his new views of mind have extended, with a most important influence, to his whole wide views of matter?

He must immediately have learned, that, in the whole tree of genera and species, the individual at the bottom of his scale was the only real independent existence, and that all the rest, the result of certain comparisons of agreement or disagreement, were simple modifications of his own mind, not produced by any thing existing in his intellect, but by the very constitution of his intellect itself; the consideration of a number of individuals as of one species being nothing more than the feeling of their agreement in certain respects, and the feeling of this agreement being as simple a result of the observation of them together, as the perception of each, individually, was of its individual presence. It would surely have been impossible for him, with this new and important light, to return to his transcendental inquiries into entities, and quiddities, and substantial forms; and the simple discovery of a better theory of abstraction, as a process of the mind, would thus have supplied the place of many rules of philosophizing.

The philosophy of mind, then, we must admit, did, in former ages at least, exercise an important influence on general science; and are we to suppose that it has now no influence?

Even though no other advantage were to be obtained from our present juster views of mind, than the protection which they give, from those gross errors of inquiry to which the philosophers of so long a series of ages were exposed, this alone would surely be no slight gain. But, great as this advantage is, are we certain, that it is all which the nicest mental analysis can afford; or rather, is it not possible at least, that we may still, in our plans of physical investigation, be suffering under the influence of errors from which we should be saved, by still juster

views of the faculties employed in every physical inquiry?

That we are not aware of any such influence, argues nothing; for, to suppose us aware of it, would be to suppose us acquainted with the very errors which mislead us. Aquinas and Scotus, it is to be presumed, and all their contentious followers, conceived themselves as truly in the right path of physical investigation, as we do at this moment; and, though we are free from their gross mistakes, there may yet be others of which we are the less likely to divest ourselves, from not having as yet the slightest suspicion of their existence. The question is not, Whether our method of inquiry be juster than theirs?—for, of our superiority in this respect, if any evidence of fact were necessary, the noble discoveries of these later years are too magnificent a proof to allow us to have any doubt; but, Whether our plan of inquiry may not still be susceptible of improvements, of which we have now as little foresight, as the Scotists and Aquinists of the advantages which philosophy has received from the general prosecution of the inductive method? There is, indeed, no reason now to fear, that the observation of particular objects, with a view to general science, will be despised as incapable of giving any direct knowledge, and all real science be confined to universals. *Singularium datur scientia.* But, though a sounder view of one intellectual process may have banished from philosophy much idle contention, and directed inquiry to fitter objects, it surely does not therefore follow, that subsequent improvements in the philosophy of mind are to be absolutely unavailing. On the contrary, the presumption unquestionably is, that if, by understanding better the simple process of abstraction, we have freed ourselves

from many errors in our plans of inquiry, a still clearer view of the nature and limits of all the intellectual processes concerned in the discovery of truth, may lead to still juster views of philosophizing.

Even at present, I cannot but think that we may trace, in no inconsiderable degree, the influence of false notions, as to some of the phenomena of the mind, in misdirecting the spirit of our general philosophy. I allude, in particular, to one very important intellectual process, — that by which we acquire our knowledge of the relation on which all physics may be said to be founded. He must have paid little attention to the history of philosophy, and even to the philosophy of his own time, who does not perceive, how much the vague and obscure notions entertained of that intermediate tie, which is supposed to connect phenomena with each other, have tended to favour the invention and ready admission of physical hypotheses, which otherwise could not have been entertained for a moment; — hypotheses, which attempt to explain what is known by the introduction of what is unknown; as if successions of phenomena were rendered easier to be understood merely by being rendered more complicated. This very unphilosophic passion for complexity (which, unphilosophic as it is, is yet the passion of many philosophers,) seems to me to arise, in a great measure, from a mysterious and false view of causation; as involving always, in every series of changes, the intervention of something unobserved, between the observed antecedent and the observed effect; a view of which may very naturally be supposed to lead the mind, when it has observed no *actual* intervention, to imagine any thing, which is not absolutely absurd, that it may flatter itself with the pleasure of having discovered a

cause. It is unnecessary, however, to enlarge at present on this subject, as it must again come before us; when you will perhaps see more clearly, how much the general diffusion of juster views, as to the nature and origin of our notion of the connexion of events, would tend to the simplification, not of our theories of mind only, but, in a still higher degree, of our theories of matter.

The observations already made, I trust, have shown how important, to the perfection of every science, is an accurate acquaintance with that intellectual medium, through which alone the objects of every science become known to us, and with those intellectual instruments, by which, alike in every science, truth is to be detected and evolved. On this influence, which the philosophy of mind must always exercise on general philosophy, I have dwelt the longer, because, important as the relation is, it is one which we are peculiarly apt to forget; and the more apt to forget it, on account of that very excellence of the physical sciences, to which it has itself essentially contributed. The discoveries, which reward our inquiry into the properties of matter, as now carried on, on principles better suited to the nature and limits of our powers of investigation, are too splendid to allow us to look back to the circumstances which prepared them at a distance; and we avail ourselves of rules, that are the result of logical analysis, without reflecting, and almost without knowing, that they are the result of any analysis whatever. We are, in this respect, like navigators on the great ocean, who perform their voyage successfully by the results of observations of which they are altogether ignorant; who look, with perfect confidence, to their compass and chart, and think of the stars as useful only in

those early ages, when the pilot, if he ventured from shore, had no other directors of his course. It is only some more skilful mariner who is still aware of their guidance; and who knows how much he is indebted to the satellites of Jupiter for the accuracy of that very chart, by which the crowds around him are mechanically directing their course.

The chief reason, however, for my dwelling so long on this central and governing relation, which the philosophy of intellect bears to all other philosophy, is, that I am anxious to impress this relation strongly on your minds; not so much with a view to the importance which it may seem to give to the particular science that is to engage us together, as with a view to those other sciences in which you may already have been engaged, or which may yet await you in the course of your studies. The consideration of mind, as universally present and presiding—at once the medium of all the knowledge which can be acquired, and the subject of all the truths of which that knowledge consists, gives, by its own unity, a sort of unity and additional dignity to the sciences, of which their scattered experiments and observations would otherwise be unsusceptible. It is an unfortunate effect of physical inquiry, when exclusively devoted to the properties of external things, to render the mind, in our imagination, subordinate to the objects on which it is directed; the faculties are nothing, the objects every thing. The very nature of such inquiry leads us perpetually without to observe and arrange, and nothing brings us back to the observer and arranger within; or, if we do occasionally cast an inquisitive glance on the phenomena of our thought, we bring back with us what Bacon, in his strong language, calls “the smoke and tarnish of the furnace;”

—the mind seems, to us, to be broken down to the littleness of the objects which it has been habitually contemplating; and we regard the faculties that measure earth and heaven, and that add infinity to infinity, with a curiosity of no greater interest than that with which we inquire into the angles of a crystal, or the fructification of a moss. “*Ludit istis animus,*” says one of the most eloquent of the ancients, “*Ludit istis animus, non proficit; et philosophiam a fastigio deducit in planum.*” To rest in researches of this minute kind, indeed, if we were absolutely to rest in them, without any higher and profounder views, would truly be, as he says, to drag down philosophy from that pure eminence on which she sits, to the very dust of the plain on which we tread. To the inquirer, however, whose mind has been previously imbued with this first philosophy, and who has learned to trace, in the wonders of every science, the wonders of his own intellectual frame, there is no physical research, however minute its object, which does not at once elevate the mind, and derive elevation from it. Nothing is truly humble, which can exercise faculties that are themselves sublime.

—Search, undismay'd, the dark profound,
Where Nature works in secret; view the beds
Of mineral treasure, and the eternal vault
That bounds the hoary ocean; trace the forms
Of atoms, moving with incessant change,
Their elemental round; behold the seeds
Of being, and the energy of life,
Kindling the mass with ever active flame:
Then to the secrets of the working mind
Attentive turn; from dim oblivion call
Her fleet ideal band: and bid them go
Break through time's barrier, and o'ertake the hour

That saw the heavens created : then declare,
 If aught were found in those external scenes
 To move thy wonder now.¹

In the physics of the material universe, there is, it must be owned, much that is truly worthy of our philosophic admiration, and of the sublimest exertions of philosophic genius. But even that material world will appear more admirable, to him who contemplates it, as it were, from the height of his own mind, and who measures its infinity with the range of his own limited but aspiring faculties. He is unquestionably the philosopher most worthy of the name, who unites to the most accurate knowledge of mind, the most accurate knowledge of all the physical objects amid which he is placed ; who makes each science, to each, reciprocally a source of additional illumination ; and who learns, from both, the noblest of all the lessons which they can give,—the knowledge and adoration of that divine Being, who has alike created, and adapted to each other, with an order so harmonious, the universe of matter and the universe of thought.

LECTURE III.

Influence of the Philosophy of Mind on the Understanding.

IN my last Lecture, Gentlemen, I illustrated, at great length, the relation which the philosophy of mind bears to all the other sciences, as the common centre of each. These sciences I represented, as, in

¹ Akenside's Pleasures of Imagination, Book i. 512-526.

their relation to the powers of discovery that are exercised in them, truly arts, in all the various intellectual processes, of which the artist is the same, and the instruments the same; and as, to the perfection of any of the mechanical arts, it is essential that we know the powers of the instruments employed in it, so, in the inventive processes of science of every kind, it seems essential to the perfection of the process, that we should know, as exactly as possible, the powers and the limits of those intellectual instruments, which are exercised alike in all; that we may not waste our industry, in attempting to accomplish with them what is impossible to be accomplished, and at the same time may not despair of achieving with them any of the wonders to which they are truly adequate, if skilfully and perseveringly exerted; though we should have to overcome many of those difficulties which present themselves, as obstacles to every great effort, but which are insurmountable, only to those who despair of surmounting them.

It was to a consideration of this kind, as to the primary importance of knowing the questions to which our faculties are competent, that we are indebted for one of the most valuable works in our science,—a work which none can read even now, without being impressed with reverence for the great talents of its author; but of which it is impossible to feel the whole value, without an acquaintance with the verbal trifling, and barren controversies, that still perplexed and obscured intellectual science at the period when it was written.

The work to which I allude, is the "Essay on the Human Understanding," to the composition of which Mr. Locke, in his preface, states himself to have been led by an accidental conversation with some friends

who had met at his chamber. In the course of a discussion, which had no immediate relation to the subject of the Essay, they found themselves unexpectedly embarrassed by difficulties that appeared to rise on every side, when, after many vain attempts to extricate themselves from the doubts which perplexed them, it occurred to Mr. Locke, that they had taken a wrong course,—that the inquiry in which they were engaged was probably one which was beyond the reach of human faculties, and that their first inquiry should have been, into the nature of the understanding itself, to ascertain what subjects it was fit to explore and comprehend.

“When we know our own strength,” he remarks, “we shall the better know what to undertake with hopes of success: and when we have well surveyed the powers of our own minds, and made some estimate what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; or, on the other side, question every thing, and disclaim all knowledge, because some things are not to be understood. It is of great use to the sailor, to know the length of his line, though he cannot with it fathom all the depths of the ocean. It is well he knows, that it is long enough to reach the bottom, at such places as are necessary to direct his voyage, and caution him against running upon shoals that may ruin him.—This was that which gave the first rise to this essay concerning the understanding. For I thought, that the first step towards satisfying several inquiries the mind of man was very apt to run into, was to take a survey of our own understandings, examine our own powers, and see to what things they were adapted. Till that was done, I suspected we began at the wrong end, and in vain sought for satis-

faction in a quiet and sure possession of truths that most concerned us, whilst we let loose our thoughts into the vast ocean of being, as if all that boundless extent were the natural and undoubted possession of our understandings. Thus men, extending their inquiries beyond their capacities, and letting their thoughts wander into those depths where they can find no sure footing, it is no wonder that they raise questions and multiply disputes, which, never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them, at last, in perfect scepticism ; whereas, were the capacities of our understandings well considered, the extent of our knowledge once discovered, and the horizon found, which sets the bounds between the enlightened and dark parts of things, between what is and what is not comprehensible by us, men would perhaps, with less scruple, acquiesce in the avowed ignorance of the one, and employ their thoughts and discourse, with more advantage and satisfaction, in the other.”¹

These observations of Mr. Locke illustrate, very happily, the importance of a right view of the limits of our understanding, for directing our inquiries to the objects that are truly within our reach. It is not the waste of intellect, as it lies torpid in the great multitude of our race, that is alone to be regretted in relation to science, which, in better circumstances, it might improve and adorn. It is, in many cases, the very industry of intellect, busily exerted, but exerted in labours that must be profitless, because the objects, to which the labour is directed, are beyond the reach of man. If half the zeal, and, I may add, even half the genius, which, during so many ages, were employed in attempting things impossible, had been given to

¹ Essay on the Human Understanding.—Introd. sect. 6, 7.

investigations, on which the transcendental inquirers of those times would certainly have looked down with contempt, there are many names that are now mentioned only with ridicule or pity, for which we should certainly have felt the same deep veneration which our hearts so readily offer to the names of Bacon and Newton ; or perhaps even the great names of Bacon and Newton might, in comparison with them, have been only of secondary dignity. It was not by idleness that this high rank of instructors and benefactors of the world was lost, but by a blind activity more hurtful than idleness itself. To those who never could have thought of numbering the population of our own little globe, it seemed an easy matter to number, with precise arithmetical accuracy, the tribes of angels, and to assign to each order of spiritual beings its separate duties, and separate dignities, with the exactness of some heraldic pomp ; and, amid all those visible demonstrations of the Divinity which surround us wherever we turn our view, there were minds that could think, in relation to him, of every thing but his wisdom and goodness ; as if He, who created us, and placed around us this magnificent system of things, were an object scarcely worthy of our reverence, till we had fixed his precise station in our logical categories, and had determined, not the majestic relations which he bears to the universe, as created and sustained by his bounty, but all the frivolous relations which he can be imagined to bear to impossibilities and nonentities.

O, sons of earth ! attempt ye still to rise,
By mountains piled on mountains, to the skies !
Heaven still, with laughter, the vain toil surveys
And buries madmen in the heaps they raise.¹

¹ Pope's Essay on Man, Ep. iv. 73-76.

It is, indeed, then, to borrow Mr. Locke's metaphor, of no slight importance to know the length of our line, though we cannot, with it, fathom all the depths of the ocean. With the knowledge that, to a certain depth, at least, we may safely confide in it, we shall not be constrained, by our fear, to coast along the shore with such cautious timidity as to lose all the treasures which might be obtained by a more adventurous voyage; nor tempted, in the rashness of ignorance or despair, to trust ourselves wildly to every wind, though our course should be amidst rocks and quicksands.

The study of the natural limits of the faculties of the mind has, indeed, sometimes been misrepresented, as favouring a tendency to vague and unlimited doubt on all subjects, even on those most important to individual and social happiness; as if the great names, to which we have long given our admiration, for the light which they have thrown on the powers and weaknesses of the human understanding, were not also the very names which we have been accustomed, not to admire merely, but to venerate, for excellence of a still nobler kind. Far from leading to general scepticism, it is, on the contrary, a sound study of the principles of our intellectual and moral nature, which alone can free from the danger of it. If the sceptical philosophy be false, as the asserters of this objection will allow that it most assuredly is, it can be overcome and destroyed only by a philosophy that is true; and the more deeply, and the more early, the mind is imbued with the principles of truth, the more confidently may we rely on its rejection of the errors that are opposed to them. It is impossible for one, who is not absolutely born to labour, to pass through life without forming in his own mind, occasionally,

some imperfect reflections on the faculties by which he perceives and reasons; or without catching, from those with whom he may associate, some of those vague notions of a vague philosophy, which pass unexamined from mind to mind, and become current in the very colloquial language of the day. The alternatives, therefore, (if we can, indeed, think of any other alternative when truth is one,) are not those of knowledge and absolute ignorance of the mental phenomena, but of knowledge more or less accurate; because absolute ignorance, even though it were a state to be wished, is beyond our power to preserve, in one who enjoys, in any respects, the benefit of education and liberal society. We might, with much greater prospect of success, attempt, by merely keeping from his view all professed treatises on astronomy, to prevent him from acquiring that slight and common acquaintance with the system of the heavenly bodies, which is necessary for knowing that the sun does not go round the earth, than we could hope to prevent him from forming, or receiving, some notions, accurate or inaccurate, as to the nature of mind; and we surely cannot suppose, that the juster those opinions are, as to the nature and force of the principles of belief, the feebler must the principles of belief appear. It is not so, that Nature has abandoned us, with principles which we must fear to examine, and with truths and illusions which we must never dare to separate. In teaching us what our powers are incapable of attaining, she has, at the same time, taught us what truths they may attain; and, within this boundary, we have the satisfaction of knowing, that she has placed all the truths that are important for our virtue and happiness. He, whose eyes are the clearest to distinguish the bounding circle, cannot, surely, be the

dullest to perceive the truths that are within. To know, only to doubt, is but the first step in philosophy; and to rest at this first step, is either imbecility or idleness. It is not there that wisdom sees, and compares, and pronounces: it is ignorance, that, with dazzled eyes, just opening from the darkness of the night, perceives that she has been dreaming, without being able to distinguish, in the sunshine, what objects are really existing around. He alone is the philosopher truly awake, who knows both how to doubt, and how to believe; believing what is evident on the very same principles, which lead him to doubt, with various degrees of uncertainty, where the evidence is less sure. To conceive that inquiry must lead to scepticism, is itself a species of scepticism, as to the power and evidence of the principles to which we have given our assent, more degrading, because still more irrational, than that open and consistent scepticism which it dreads. It would, indeed, be an unworthy homage to truths, which we profess to venerate, to suppose, that adoration can be paid to them only while we are ignorant of their nature; and that to approach their altars would be to discover, that the majestic forms which seem animated at a distance, are only lifeless idols, as insensible as the incense which we have offered to them.

The study of the powers and limits of the understanding, and of the sources of evidence in external nature and ourselves, instead of either forming or favouring a tendency to scepticism, is then, it appears, the surest, or rather the only mode of removing the danger of such a tendency. That mind may soon doubt even of the most important truths, which has never learned to distinguish the doubtful from the true. But to know well the irresistible evidence on

which truth is founded, is to believe in it, and to believe in it for ever.

Nor is it from the danger of scepticism only, that a just view of the principles of his intellectual constitution tends to preserve the philosophic inquirer. It saves him also from that presumptuous and haughty dogmatism, which, though free from doubt, is not, therefore, necessarily free from error; and which is, indeed, much more likely to be fixed in error than in truth, where the inquiry, that precedes conviction, has been casual and incomplete. A just view of our nature as intelligent beings, at the same time that it teaches us enough of our strength to allow us to rest with confidence on the great principles, physical, moral, and religious, in which alone it is of importance for us to confide, teaches us also enough of our weakness to render us indulgent to the weakness of others. We cease to be astonished that multitudes should differ from us; because we know well, that while nature has made a provision for the universal assent of mankind to those fundamental physical truths, which are essential to their very existence, and those fundamental truths of another kind, which are equally essential to their existence as subjects of moral government, she has left them, together with principles of improvement that ensure their intellectual progress, a susceptibility of error, without which there could be no progression; and, while we almost trace back the circumstances which have modified our own individual belief, we cannot but be aware, at the same time, how many sources there are of prejudice, and, consequently, of difference of opinion, in the various situations in which the multitudes that differ from us have been placed. To feel anger at human error, says an ancient philosopher, is the same thing as if we were to be angry

with those who stumble in the dark; with the deaf for not obeying our command; with the sick; with the aged; with the weary. That very dulness of discernment, which excites at once our wonder and our wrath, is but a part of the general frailty of mortality; and the love of our errors is not less inherent in our constitution than error itself. It is this general constitution which is to be studied by us, that we may know with what mistakes and weaknesses we must have to deal, when we have to deal with our fellow-men; and the true art, therefore, of learning to forgive individuals, is to learn first how much we have to forgive to the whole human race. "*Illud potius cogitabis, non esse irascendum erroribus. Quid enim, si quis irascatur in tenebris parum vestigia certa ponentibus? Quid si quis surdis, imperia non exaudientibus? Quid si pueris, quod neglecto dispectu officiorum, ad lusus et ineptos æqualium jocos spectent? Quid si illis irasci velis, qui ægrotant, senescunt, fatigantur? Inter cætera mortalitatis incommoda, et hæc est, caligo mentium: nec tantum necessitas errandi, sed errorum amor. Ne singulis irascaris, universis ignoscendum: generi humano venia tribuenda est.*"¹

How much of the fury of the persecuting spirit of darker ages would have been softened and turned into moderation, by juster views of the nature of man, and of all the circumstances on which belief depends! It appears to us so very easy to believe what we consider as true, — or rather it appears to us so impossible to disbelieve it, — that, if we judge from our own momentary feelings only, without any knowledge of the general nature of belief, and of all the principles in

¹ Seneca, de Ira, lib. ii. cap. 9.

our mental constitution by which it is diversified, we very naturally look on the dissent of others as a sort of wilful and obstinate contrariety, and almost as an insulting denial of a right of approbation, which we consider ourselves, in these circumstances, as very justly entitled to claim. The transition from this supposed culpability to the associated ideas of pains and penalties, is a very natural one; and there is, therefore, a sufficient fund of persecution in mere ignorance, though the spirit of it were not, as it usually is, aggravated by degrading notions of the Divine Being, and false impressions of religious duty. Very different are the sentiments which the science of mind produces and cherishes. It makes us tolerant, not merely by showing the absurdity of endeavouring to overcome, by punishment, a belief which does not depend on suffering; but which may remain, and even gather additional strength, in imprisonment, in exile, under the axe, and at the stake. The absurdity of every attempt of this kind it shows indeed; but it makes us feel, still more intimately, that injustice of it, which is worse than absurdity, by showing our common nature, in all the principles of truth and error, with those whom we would oppress; all having faculties that may lead to truth, and tendencies of various kinds which may mislead to error, and the mere accidental and temporary difference of power being, if not the greatest, at least the most obvious circumstance, which, in all ages, has distinguished the persecutor from the persecuted.

Let not this weak, unknowing hand,
Presume thy bolts to throw;
Or deal damnation round the land,
On all I judge thy foe!

If I am right, — thy grace impart
Still in the right to stay :
If I am wrong, — O, teach my heart
To find the better way.¹

Such is the language of devout philosophy. No proud assertion of individual infallibility,—no triumph over the consequences in others, of a fallible nature, which ourselves partake in common,—but the expression of feelings more suited to earthly weakness,—of a modest joy of belief, which is not less delightful for the humility that tempers it; and of a modest sorrow for the seeming errors of others, to which the consciousness of our own nature gives a sympathy of warmer interest. The more important the subject of difference, the greater, not the less, will be the indulgence of him who has learned to trace the sources of human error,—of error that has its origin not in our weakness and imperfection merely, but often in the most virtuous affections of the heart,—in that respect for age, and admiration of virtue, and gratitude for kindness received, which make the opinions of those whom we love and honour, seem to us, in our early years, as little questionable as the virtues which we love to contemplate, or the very kindness which we feel at every moment beaming on our heart, in the tender protection that surrounds us. That the subjects, on which we may differ from others, are important to happiness, of course implies, that it is no slight misfortune to have erred; and that the mere error, therefore, must be already too great an evil to require any addition from our individual contempt or indignation, far less from the vengeance of public authority,—that may be right, in the opinions which

¹ Pope's Universal Prayer, v. 25-32.

it conceives to be insulted by partial dissent; but which must be wrong, in the means which it takes to avenge them. To be sincerely thankful for truths received, is, by the very nature of the feeling, to be sensible how great a blessing those have lost who are deprived of the same enjoyment; and to look down, then, with insolent disdain, on the unfortunate victim of error, is, indeed, to render contemptible, (as far as it is in our feeble power to render it contemptible,) not the error which we despise, but the truth which allows us to despise it.

The remarks which I have as yet made, on the effects of acquaintance with the philosophy of mind, relate to its influence on the general spirit of philosophical inquiry; the advantage which must be derived, in every science, from a knowledge of the extent of the power of the intellectual instruments which we use for the discovery of truth; the skill which we thence acquire in distinguishing the questions in which we may justly hope to discover truth, from those questions of idle and endless controversy, the decision of which is altogether beyond the reach of our faculties; and the consequent moderation in the temper, with which we look both to our own possible attainments, and to the errors of others.

But, beside these general advantages, which the philosophy of mind extends to all the inquiries of which human genius is capable, there are some advantages more peculiarly felt in certain departments of science or art. It is not merely with the mind that we operate; the subject of our operations is also often the mind itself. In education, in criticism, in poetry, in eloquence, the mind has to act upon mind, to produce in it either emotions that are temporary, or affections and opinions that are permanent. We have

to instruct it, to convince it, to persuade it, to delight it, to soften it with pity, to agitate it with terror or indignation; and all these effects, when other circumstances of genius are the same, we shall surely be able to produce more readily, if we know the natural laws of thought and emotion; the feelings which are followed by other feelings; and the thoughts which, expanding into other thoughts, almost of themselves produce the very passion, or conviction, which we wish to excite.

"One considerable advantage," says Mr. Hume, "which results from the accurate and abstract philosophy, is its subserviency to the easy and humane; which, without the former, can never attain a sufficient degree of exactness in its sentiments, precepts, or reasonings. All polite letters are nothing but pictures of human life in various attitudes and situations; and inspire us with different sentiments of praise or blame, admiration or ridicule, according to the qualities of the object which they set before us. An artist must be better qualified to succeed in this undertaking, who, besides a delicate taste and quick apprehension, possesses an accurate knowledge of the internal fabric, the operations of the understanding, the workings of the passions, and the various species of sentiment which discriminate vice and virtue. However painful this inward search or inquiry may appear, it becomes in some measure requisite to those who would describe with success the obvious and outward appearances of life and manners. The anatomist presents to the eye the most hideous and disagreeable objects; but his science is highly useful to the painter in delineating even a Venus or an Helen. While the latter employs all the richest colours of his art, and gives his figures the most graceful and

engaging airs, he must still carry his attention to the inward structure of the human body, the position of the muscles, the fabric of the bones, and the use and figure of every part or organ. Accuracy is, in every case, advantageous to beauty, and just reasoning to delicacy of sentiment; in vain would we exalt the one by depreciating the other."¹

There is a most striking passage to the same purport, in that beautiful dialogue on ancient oratory, which has been ascribed, without any very satisfactory evidence, to various authors, particularly to Quintilian, the younger Pliny, and Tacitus, and which is not unworthy of the most eminent of the names to which it has been ascribed. After dwelling on the universal science and erudition of the great master of Roman eloquence, the chief speaker in the dialogue proceeds to show the peculiar advantage which oratory must derive from moral and intellectual science, to the neglect of which fundamental study, as superseded by the frivolous disputations of the rhetorical schools, he ascribes the decay of eloquence in the age of which he speaks.

"Ita enim est, optimi viri, ita, ex multa eruditione, ex pluribus artibus, et omnium rerum scientia, exundat et exuberat illa admirabilis eloquentia. Neque oratoris vis et facultas, sicut cæterarum rerum, angustis et brevibus terminis eluditur; sed is est orator, qui de omni quæstione pulchrè, et ornatè, et ad persuadendum aptè dicere, pro dignitate rerum ad utilitatem temporum, cum voluptate audientium possit. Hæc sibi illi veteres persuadebant. Ad hæc efficienda intelligebant opus esse, non ut Rhetorum scholis declamarent, — sed ut his artibus pectus implerent, in

¹ Inquiry concerning the Human Understanding, sect. 1.

quibus de bonis ac malis, de honesto ac turpi, de justo et injusto disputatur; — de quibus copiosè, et variè, et ornatè, nemo dicere potest, nisi qui cognovit naturam humanam. — Ex his fontibus etiam illa profluunt, ut facilius iram judicis vel instiget, vel leniat, qui scit quid ira, promptius ad miserationem impellat qui scit quid sit misericordia, et quibus animi motibus concitentur. In his artibus exercitationibusque versatus orator, sive apud infestos, sive apud cupidos, sive apud invidentes, sive apud tristes, sive apud timentes dicendum habuerit, tenebit habenas animorum, et prout cujusque natura postulabit, adhibebit manum et temperabit orationem, parato omni instrumento, et ad usum reposito.”¹

What is the whole art of criticism, in its most important applications, but the knowledge of the most natural successions of thought and feeling in the mind? We judge of the perspicuity and order of a discourse, by knowing the progress in which the mind, by the development of truth after truth, may be made at last to see the full meaning of the most complex proposition. We judge of the beauty of impassioned poetry or eloquence, by knowing whether the figures, the images, the very feelings described, be such as, from our observation of the laws that regulate the internal series of changes in the mind, we know to be consistent with that state of emotion, in which a mind must exist that has been placed in the situation supposed. If all other circumstances be equal, he will undoubtedly be the best critic, who knows best the phenomena of human thought and feeling; and, without this knowledge, criticism can be nothing but a measurement of words, or a repetition of the ever

¹ Tacitus, *edit. Lipsii*, pp. 484, 485.

repeated and endless commonplaces of rhetoric. The knowledge of nature, of the necessity of which critics speak so much, and so justly, and which is as essential to the critic himself, as to the writer on whom he sits in judgment, is only another name for the knowledge of the successive transitions of feeling of the mind, in all the innumerable diversities in which it is capable of being modified by the variety of circumstances in which it may be placed. It is for this reason, that, with so great an abundance of the mere art, or rather of the mere technical phrases of criticism, we have so very little of the science of it; because the science of criticism implies an acquaintance with the philosophy of thought and passion, which few can be expected to possess; and though nothing can be easier than to deliver opinions, such as pass current in the drawing-room, and even in the literary circle, which the frivolous may admire as profound, and the ignorant as erudite, and which many voices may be proud to repeat; though even the dull and pedantic are as able as the wise to say, in fluent language, that one passage of a work of genius is beautiful and another the reverse, because one of them is in accordance with some technical rules, or because Homer and Milton have passages similar to the one, and not to the other, — it is far from being equally easy to show, how the one passage is beautiful, from its truth of character, and the other, though perhaps rich in harmony of rhythm and rhetorical ornament, is yet faulty, by its violation of the more important harmony of thought and emotion: a harmony which nature observes as faithfully, in the progress of those vehement passions that appear most wild and irregular, as in the calmest successions of feeling of the most tranquil hours. It would, indeed, be

too much to say, as in the well-known couplet of Pope,

Let such teach others who themselves excel,
And censure freely who have written well;¹

for the critic requires only one of the two great talents, which, in the poet, ought to exist together, but which may yet exist separately. In the poet, there must be, in the first place, an inventive fancy to bring together thoughts and images which have never been combined before; and, with this inventive fancy, a discriminating judgment, which is to measure, by the standard of nature, the products of invention; and to retain them, only if they appear such, as though perhaps never before combined, might yet, in conformity with the natural laws of thought, have occurred to a mind, in the circumstances represented, as truly as the other thoughts or images which the works of other poets have rendered more familiar. This latter talent,—the judgment which determines the intrinsic beauty and fidelity to general nature,—is all which is absolutely requisite to the critic, who is not, therefore, under the necessity of being himself “the great sublime” which he draws. Yet, though all the elements of excellence in the artist are not absolutely requisite for the judgment of the sage and discriminating admirer of the noble works which that excellence may have produced, some of these elements unquestionably are requisite: elements for which the critic may search in vain in all the rules of rhetoricians, and even in the perusal of all the masterpieces of ancient and modern times, unless, to an acquaintance with these, he add an accurate acquaintance with that intellectual and moral nature of man, the beautiful conformity to which was

¹ *Essay on Criticism*, v. 1516.

the essential charm of all the pathos, and all the eloquence, which he has admired.

There is another art, however, to which knowledge of the intellectual and moral nature of man is still more important: that noble art, which has the charge of training the ignorance and imbecility of infancy into all the virtue, and power, and wisdom of mature manhood; of forming, of a creature, the frailest and feeblest perhaps which Heaven has made, the intelligent and fearless sovereign of the whole animated creation, the interpreter, and adorer, and almost the representative of the Divinity. The art, which performs a transformation so wondrous, cannot but be admirable itself; and it is from observation of the laws of mind, that all which is most admirable in it is derived. These laws we must follow, indeed, since they exist not by our contrivance, but by the contrivance of that nobler wisdom, from which the very existence of the mind has flowed; yet if we know them well, we can lead them, in a great measure, even while we follow them. And, while the helpless subject of this great moral art is every moment requiring our aid, — with an understanding that may rise, from truth to truth, to the sublimest discoveries, or may remain sunk for ever in ignorance, and with susceptibilities of vice that may be repressed, and of virtue that may be cherished, — can we know too well the means of checking what is evil, and of fostering what is good? It is too late to lie by, in indolent indulgence of affection, till vice be already formed in the little being whom we love, and to labour then to remove it, and to substitute the virtue that is opposite to it. Vice, already formed, is almost beyond our power. It is only in the state of latent propensity that we can, with much reason, expect to overcome it, by the moral

motives which we are capable of presenting ; and to distinguish this propensity before it has expanded itself, and even before it is known to the very mind in which it exists,—to tame those passions which are never to rage, and to prepare, at a distance, the virtues of other years,—implies a knowledge of the mental constitution, which can be acquired only by a diligent study of the nature, and progress, and successive transformations of feeling. It is easy to know, that praise or censure, reward or punishment, may increase or lessen the tendency to the repetition of any particular action ; and this, together with the means of elementary instruction, is all which is commonly termed education. But the true science of education is something far more than this. It implies a skilful observation of the past, and that long foresight of the future, which experience and judgment united afford. It is the art of seeing, not the immediate effect only, but the series of effects which may follow any particular thought or feeling, in the infinite variety of possible combinations—the art often of drawing virtue from apparent evil, and of averting evil that may arise from apparent good. It is, in short, the philosophy of the human mind applied practically to the human mind ; enriching it, indeed, with all that is useful or ornamental in knowledge, but at the same time giving its chief regard to objects of yet greater moment ; averting evil, which all the sciences together could not compensate, or producing good, compared with which all the sciences together are as nothing.

LECTURE IV.

Relation of the Philosophy of Mind to Morality.

WE have already, Gentlemen, considered the relation which the philosophy of mind bears to the sciences in general, and its particular application to those sciences and arts, in which the mind is not merely the instrument with which we carry on our intellectual operations; but the very subject on which we operate, as in the great arts of reasoning, and persuading, of delighting with all the charms of poetry and eloquence, of judging of the degrees of excellence that have been attained in these delightful arts; and, still more, its application to the noblest, though, in proportion to its value, the least studied of all the arts, — the art of education. It remains still to point out some moral effects which the study of the science of mind produces in the inquirer himself, effects which may not be obvious at first sight, but which result from it, as truly as the intellectual advantages already pointed out.

One very powerful and salutary influence of moral science arises directly from the mere contemplation of the objects with which it is conversant—the benevolent affections, the pleasure which attends these, the sacrifices that are made by generous virtue, and all the sublime admiration which they excite; the sordid, and malevolent, and joyless passions of the selfish; the fear and shame that attend the guilty in society, and the horrors that, with a certainty of constant return more dreadful than their very presence, await them in their solitary hours. It is good to have these often before us, and to trace and contrast all

the immediate and all the remote effects of vice and virtue, even though we should form, at the time, no direct reference to our own past or future conduct. Without any such reference to ourselves, we must still be sensible of the pleasure and serene confidence which attend the one, and of the insecurity and remorse which for ever hang over the other; and the remaining impressions of love and disgust will have an influence on our future conduct, of which we may probably be altogether unconscious at the time. It is, in truth, like the influence of the example of those with whom we habitually associate, which no one perceives at any particular moment, though all are every moment subject to it; and to meditate often on virtue and happiness, is thus almost to dwell in a sort of social communion with the virtuous and happy. The influence of moral conceptions has, in this respect, been compared to that of light, which it is impossible to approach without deriving from it some faint colouring, even though we should not sit in the very sunshine; or to that of precious odours, amid which we cannot long remain, without bearing away with us some portion of the fragrance. "*Ea enim philosophiæ vis est, ut non solum studentes, sed etiam conversantes juvet. Qui in solem venit, licet non in hoc venerit, colorabitur: qui in unguentaria taberna resederunt, et paulo diutius commorati sunt, odorem secum loci ferunt: et qui apud philosophiam fuerunt, traxerint aliquid necesse est, quod prodesset etiam negligentibus.*"¹

The nature of the process, by which this moral benefit arises from the mere contemplation of moral objects, frequently repeated, is far from obscure, though

¹ Seneca, Ep. 108.

it depends on a cause to which you may perhaps as yet have paid little attention, but which, in an after part of the course, I shall have an opportunity of illustrating at length—the influence of the associating principle in the mind—of that principle, by which ideas and other feelings, that have often co-existed, acquire, for ever after, an almost indissoluble union. It is not merely, therefore, by having traced more accurately than others the consequences of vice and virtue, as affecting the general character, that the lover of moral science strengthens his admiration of virtue, and his abhorrence of vice. But by the frequent consideration of virtue, together with the happiness which it affords, and of vice, together with its consequent misery, the notions of these become so permanently, and so deeply associated, that future virtue appears almost like happiness about to be enjoyed, and future vice like approaching misery. The dread of misery, and the love of happiness, which are essential principles of our very physical existence, are thus transformed into principles of moral conduct, that operate before reflection, with the rapidity, and almost with the energy of instincts; and that, after reflection, add to our virtuous resolutions a force and stability, which, as results of mere reasoning, they could not possess.

It is, besides, no small advantage of the abstract consideration of virtue, as opposed to the miseries of vice, that, in considering these philosophically, we regard them as stripped of every thing that can blind or seduce us; and we behold them, therefore, truly as they are. It is not in the madness of intemperate enjoyment that we see drunkenness in the goblet, and disease in the feast. Under the actual seduction of a passion, we see dimly, if we see at all, any of the evils

to which it leads ; and if the feelings, of which we are then conscious, were those which were for ever after to be associated with the remembrance of the passion, it would appear to us an object, not of disgust or abhorrence, but of delight and choice, and almost of a sort of moral approbation. It is of importance, then, that we should consider the passion, at other moments than these, that the images associated with it may be not of that brief and illusive pleasure, which stupifies its unfortunate victim, but of its true inherent character of deformity, and of the contempt and hatred which it excites in others. Such is the advantage of the point of view in which it is seen by the moral inquirer, to whom it presents itself, not under its momentary character of pleasure, but under its lasting character of pain and disgust. By habituating himself to consider the remote, as well as the immediate results of all the affections and passions, he learns to regard virtue, not merely as good in itself, at the moment in which it is called into exercise, but as an inexhaustible source of good which is continually increasing ; and vice, not merely as a temporary evil in itself, but as a source of permanent and yet deeper misery and degradation. Every generous principle, which nature has given him, is thus continually deriving new strength from the very contemplation of the good which it affords ; and if, in the frailty of mortality, he should still be subject to the occasional influence of those very passions which, in cooler moments, he detests, he yet does not fall, thoroughly and hopelessly. There are lingering associations of moral beauty and happiness in his mind, which may save him still ; associations that must render it, in some degree at least, more difficult for him than for others to yield to seductions of which he has long

known the vanity, and which perhaps even may, in some happier hour, lead him back to that virtue, of which he has never wholly forgotten the charms.

The charms of virtue, indeed, it is scarcely possible, for him who has felt them, wholly to forget. There may be eyes that can look unmoved on the external beauty which once delighted them. But who is there that has ever been alive to its better influence, who can think of moral loveliness without a feeling of more than admiration,—without a conscious enjoyment, in the possession of what is so truly admirable, or a sigh at having lost the privilege of dwelling on it with delight, and at being obliged to shrink from the very thought of what it once appeared?

“For what can strive

With Virtue? Which of Nature's regions vast
Can in so many forms produce to sight
Such powerful beauty?—Beauty, which the eye
Of Hatred cannot look upon secure;
Which Envy's self contemplates, and is turn'd
Ere long to tenderness, to infant smiles,
Or tears of humblest love. Is aught so fair,
In all the dewy landscapes of the Spring,
The Summer's noontide groves, the purple eve
At harvest-home, or in the frosty moon
Glittering on some smooth sea; is aught so fair
As virtuous friendship?—As the honour'd roof,
Whither, from highest heaven, immortal Love,
His torch ethereal, and his golden bow,
Propitious brings, and there a temple holds,
To whose unspotted service, gladly vow'd,
The social band of parent, brother, child,
With smiles and sweet discourse, and gentle deeds,
Adore his power? What gift of richest clime
E'er drew such eager eyes, or prompted such
Deep wishes, as the zeal, that snatcheth back
From Slander's poisonous tooth a foe's renown,
Or crosseth Danger in his lion-walk,
A rival's life to rescue?”¹

¹ Akenside's Pleasures of Imagination, Book ii. 328-358.

The study of moral science, then, we have seen, has a direct tendency to strengthen our attachment to the virtues which we habitually contemplate. Another most important advantage derived from it, relates to us in our higher character of beings capable of religion, increasing our devotion and gratitude to the Divinity, by the clearer manifestation which it gives us of his provident goodness in the constitution and government of the moral world.

The external universe, indeed, though our study were confined to the laws which regulate its phenomena, would afford, in itself, abundant proof of the power and wisdom by which it was created. But power and wisdom alone excite admiration only, not love; which, though it may be feigned in the homage that is universally paid to power, is yet, as an offering of the heart, paid to it only when it is combined with benevolence. It is the splendid benevolence, therefore, of the Supreme Being, which is the object of our grateful adoration; and, to discover this benevolence, we must look to creatures that have not existence merely, like inanimate things, but a capacity of enjoyment, and means of enjoyment. It is in man, or in beings capable of knowledge and happiness, like man, that we find the solution of the wonders of the creation; which would otherwise, with all its regularity and beauty, be but a solitary waste, like the barren magnificence of rocks and deserts. God, says Epictetus, has introduced man into the world, to be the spectator of his works, and of their divine Author; and not to be the spectator only, but to be the announcer and interpreter of the wonders which he sees and adores. 'Ο Θεός—τὸν ἄνθρωπον θεατὴν εἰσέγαγεν αὐτοῦ τε καὶ τῶν ἔργων τῶν αὐτοῦ· καὶ οὐ μόνον θεατὴν ἀλλὰ καὶ ἐξηγητὴν αὐτῶν.¹

¹ Dissertat. ab Arrian. collect. lib. i. c. 6.—p. 53. *Edit. Upton.*

"Hæc qui contemplatur," says another ancient Stoic, with a little of the bold extravagance of his school; "Hæc qui contemplatur, quid Deo præstat? Ne tanta ejus opera sine teste sint."—"Curiosum nobis natura ingenium dedit; et artis sibi ac pulchritudinis suæ conscia, spectatores nos tantis rerum spectaculis genuit, perditura fructum sui, si tam magna, tam clara, tam subtiliter ducta, tam nidita, et non uno genere formosa solitudini ostenderet."¹

In the study of what might be considered as the very defects of our moral nature, how pleasing is it, to the philosophic inquirer, to discover that provident arrangement of a higher Power, which has rendered many of the most striking of the apparent evils of life subservient to the production of a general utility, that had never entered into the contemplation of its remote authors. He who has never studied the consequences of human actions, perceives, in the great concourse of mankind, only a multitude of beings consulting each his own peculiar interest, or the interest of the very small circle immediately around him, with little, if any, apparent attention to the interests of others. But he who has truly studied human actions and their consequences, sees, in the prosecution of all these separate interests, that universal interest which is their great result, and the very principle of self-regard thus contributing to social happiness, unconsciously indeed, but almost as surely as the principle of benevolence itself.

Each individual seeks a several goal,
But Heaven's great view is *one*, and that the whole.
That counterworks each folly and caprice :
That disappoints the effects of every vice ;—
All Virtue's ends from Vanity can raise ;
Which seeks no interest, no reward but praise ;

¹ Seneca de Otio Sapient. c. 32.

And build on wants, and on defects of mind,
The joy, the peace, the glory of mankind.¹

I have already,² when treating of the influence of just views of the extent and limits of our faculties, in fixing the proper tone of inquiry, and lessening equally the tendency to the opposite extremes of dogmatism and scepticism, stated some important moral advantages that arise from this very moderation of the tone of inquiry, particularly with respect to the temper with which it prepares us to receive dissent from our opinions without anger, or insolent disdain, or even astonishment. So much of the intercourse of human society consists in the reciprocal communication of opinions which must often be opposed to each other, that this preparation of the temper, whether for amicable and equal discussion, or for mutual silent forbearance, is not to be lightly appreciated as an element in the sum of human happiness. On this point, however, and on its relation to the still greater advantages, or still greater evils, of national and legislative tolerance or intolerance, I before offered some remarks, and therefore merely allude to it at present.

The tolerance with which we receive the opinions of others is a part, and an indispensable part, of that general refinement of manners to which we give the name of politeness. But politeness itself, in all its most important respects, — indeed in every respect, in which it is to be separated from the mere fluctuating and arbitrary forms and ceremonies of the month or year, — is nothing more than knowledge of the human mind directing general benevolence. It is the art of producing the greatest happiness, which, in the

¹ Pope's *Essay on Man*, Ep. ii. 237-240, and 245-248.

² Lect. III.

mere external courtesies of life, can be produced, by raising such ideas or other feelings in the minds of those with whom we are conversant, as will afford the most pleasure, and averting, as much as possible, every idea which may lead to pain. It implies, therefore, when perfect, a fine knowledge of the natural series of thoughts, so as to distinguish, not merely the thought which will be the immediate or near effect of what is said or done, but those which may arise still more remotely; and he is the most successful in this art of giving happiness, who sees the future at the greatest distance. It is this foresight, acquired by attentive observation of the various characters of mankind in a long intercourse with society, which is the true knowledge of the world; for the knowledge of the mere forms and ceremonies of the world, which is of far easier acquisition, is scarcely worthy of being called a part of it. The essential, and the only valuable part of politeness, then, is as truly the result of study of the human mind, as if its minutest rules had formed a regular part of our systems of intellectual and moral philosophy. It is the philosophy indeed of those who scarcely know that they are philosophizing; because philosophy, to them, implies something which has no other ornaments than diagrams and frightful algebraic characters, laid down in systems, or taught in schools and universities, with the methodical tediousness of rules of grammar; and they are conscious that all, or the greatest part of what they know, has been the result of their own observation, and acquired in the very midst of the amusements of life. But he, who knows the world, must have studied the mind of man, or at least — for it is only a partial view of the mind which is thus formed — must have studied it in some of its most

striking aspects. He is a practical philosopher, and, therefore, a speculative one also, since he must have founded his rules of action on certain principles, the results of his own observation and reflection. These results are, indeed, usually lost to all but to the individual; and the loss is not to be considered as slight, merely because the knowledge, which thus perishes, has been usually applied by its possessor to frivolous purposes, and sometimes perhaps to purposes still more unworthy. When we read the maxims of La Rochefoucauld, which, false as they would be, if they had been intended to give us a faithful universal picture of the moral nature of man, were unfortunately too faithful a delineation of the passions and principles that immediately surrounded their author, and met his daily view, in the splendid scenes of vanity and ambitious intrigue to which his observation was confined,—it is impossible not to feel, that, acute and subtle as they are, many of these maxims must have been only the expression of principles which were floating, without being fixed in words, in the minds of many of his fellow-courtiers; and the instruction, which might be received from those who have been long conversant with mankind, in situations favourable to observation, if by any possibility it could be collected and arranged, would probably furnish one of the most important additions which could be made to moral science.

How much politeness consists in knowledge of the natural succession of thoughts and feelings, and a consequent ready foresight of the series of thoughts, which it is in our power indirectly to excite or avert, must have presented itself in a very striking manner to every one, whose professional duties, or other circumstances, have led him to pay attention to the lower

orders of society. The most benevolent of the poor, in situations too in which their benevolence is most strongly excited, as in the sickness of their relations or friends, and in which they exert themselves to relieve obvious pain, with an assiduity of watching and fatigue, after all the ordinary fatigues of the day, that is truly honourable to their tenderness, have yet little foresight of the mere pains of thought; and while, in the same situation, the rich and better educated, with equal, or perhaps even with less benevolence of intention, carefully avoid the introduction of any subject, which might suggest indirectly to the sufferer the melancholy images of parting life, the conversation of the poor, around the bed of their sick friend, is such as can scarcely fail to present to him every moment, not the probability merely, but almost the certainty of approaching death. It is impossible to be present, in these two situations, without remarking the benefit of a little knowledge of the human mind, without which, far from fulfilling its real wishes, benevolence itself may be the most cruel of torturers.

The same species of foresight which is essential to the refinements of social intercourse, is equally essential, in the active occupations of life, to that knowledge of times and circumstances, which is so important to success; and though this knowledge may be too often abused, to unworthy purposes, by the sordid and the servile, it is not the less necessary to those who pursue only honourable plans, and who avail themselves only of honourable means. Such is the nature of society, that the most generous and patriotic designs still require some conduct to procure for them authority; and, at least in the public situations of life, without a knowledge of the nature both of those who are to govern, and of those who are to

be governed, though it may be very easy to wish well to society, the hardest of all tasks will be the task of doing it good.

May I not add, as another salutary moral effect of the science of mind, the tendency which the study of the general properties of our common nature has to lessen that undue veneration, which, in civilized society, must always attend the adventitious circumstances of fortune, and to bring this down, at least some degrees, nearer to that due respect which is indispensable for the tranquillity and good order of a state, and which no wise and patriotic moralist, therefore, would wish to see diminished. It is only in the tumultuous frenzy of a revolution, however, or in periods of great and general discontent, that the respect of the multitude for those who are elevated above them, in rank and fortune, is likely to fall beneath this salutary point. So many of the strongest principles of our nature favour the excess of it, that, in the ordinary circumstances of society, it must always pass far beyond the point of calm respect; so far beyond it, indeed, that the lesson which the people require most frequently to be taught, is, not to venerate the very guilt and folly of the rich and powerful, because they are the guilt and folly of the rich and powerful. It is to the objects of this idolatry themselves, however, that the study of a science, which considers them as stripped of every adventitious distinction, and possessing only the common virtues and talents of mankind, must be especially salutary. In the ordinary circumstances of a luxurious age, it is scarcely possible for the great to consider themselves as what they truly are; and though, if questioned as to their belief of their common origin with the rest of mankind, they would no doubt think the question an

absurd one, and readily own their descent from the same original parentage ; there can be as little doubt, that, in the silence of their own mind, and in those hours of vanity and ambition, which, to many of them, are almost the whole hours of life, this tie of common nature is rarely, if ever felt. It is impossible, indeed, that it should be often felt ; because, in the circumstances in which they are placed, there is every thing to remind them of a superiority, of which their passions themselves are sufficiently ready to remind them, and very little to remind them of an equality, from the contemplation of which all their passions are as ready to turn away. There are, however, some circumstances which are too strong for all these passions to overcome, and which force, in spite of them, upon the mind, that self-knowledge which, in other situations, it is easy to avoid. In pain and sickness, notwithstanding all the vain magnificence which the pride of grandeur spreads around the couch, and the profusion of untasted delicacies, with which officious tenderness strives to solicit an appetite that loathes them, he who lies upon the couch within, begins to learn his own nature, and sees, through the splendour that seems to surround him, as it were, without touching him, how truly foreign it is to that existence, of which before it seemed to form a part. The feeling that he is but a man, in the true sense of that word, as a frail and dependent being like those around him, is one of the first feelings, and perhaps not one of the least painful, which arise in such a situation. The impression, however, of this common nature is, while it lasts, a most salutary one ; and it is to be regretted only, that health cannot return without bringing back with it all those flattering circumstances which offer the same seductions as before to his haughty superiority.

The sight of death, or of the great home of the dead, in like manner, seldom fails to bring before us our common and equal nature. In spite of all the little distinctions which a churchyard exhibits, in mimic imitation, and almost in mockery, of the great distinctions of life, the turf, the stone, with its petty sculptures, and all the columns and images of the marble monument ; as we read the inscription, or walk over the sod, we think only of what lies beneath in undistinguishable equality. There is scarcely any one on whom these two great equalizing objects, sickness and the sight of death, have not produced, for a short time at least, some salutary moral impression. But these are objects which cannot often occur, and which are accompanied with too many distressing circumstances, to render it desirable that they should be of very frequent occurrence. The study of the mind, of our common moral and intellectual nature, and of those common hopes which await us, as immortal beings, seems in some degree to afford the advantage, without the mixture of evil ; for, though, in such speculative inquiries, the impression may be less striking than when accompanied with painful circumstances, it is more permanent, because, from the absence of those powerful circumstances, it is more frequently and willingly renewed. In the philosophy of mind, all those heraldic differences which have converted mere human vanity into a science are as nothing. It is man that is the object of investigation, and man with no distinctions that are adventitious. The feelings, the faculties, which we consider, are endowments of the rich and powerful indeed ; but they are endowments also of the meanest of those on whom they look with disdain. It is something, then, for those whose thoughts are continually directed,

by external circumstances, to that perilous elevation on which they are placed, to be led occasionally, as in such inquiries they must be, to measure themselves and others without regard to the accidental differences of the heights on which they stand, and to see what it is in which they truly differ, and what it is in which they truly agree.

In the remarks already made, on the study of the science of mind, we have considered its effects on the progress of the other sciences, and on the moral dispositions. But, though the study had no effects of this kind, moral or intellectual, is not the mind itself a part of nature, and, as a mere physical object, deserving of our profoundest and most intent investigation? Or shall it be said, that while we strive, not merely to measure the whole earth, and to follow in our thought the revolutions of those great orbs, whose majesty may almost be said to force from us this homage of admiration, but to arrange, in distinct tribes, those animalcular atoms, whose very existence we learn only from the glass through which we view them,—the observing and calculating mind itself is less an object of universal science, than the antennæ of an insect, or the filaments of a weed? Would it be no reproach to man, even though he knew all things besides, that he yet knew far less accurately than he might know, his own internal nature, like voyagers who delight in visiting every coast of the most distant country, without the slightest acquaintance, perhaps, with the interior of their own.

Qui terræ pelagique vias, mundique per omnes
 Articulos spatiat ovans, metasque suorum
 Herculeas audet supra posuisse laborum,
 Neglectus jacet usque sibi, dumque omnia quærit,
 Ipse sui quæsit abest; incognita tellus
 Solus nauta latet, propiorque ignotior orbis.

Would the lines which follow these, if indeed there were any one to whom they were applicable in their full extent, convey praise less high than that which might be given to the observer of some small nerve or membrane, that had never been observed before, or the discoverer of a new species of earth in some pebble before unanalyzed ?

*Tu melior Tiphys, spreto jam Phasidis auro,
In te vela paras, animatos detegis orbes,
Humanasque aperis ausis ingentibus oras.
Jamque novos laxari sinus, animæque latentis
Arcanas reserare vias, cœlosque recessus
Fas aperire tibi, totamque secludere mentem.*

To the mind, considered as a mere object of physical inquiry, there is one circumstance of interest, that is peculiar. It is the part of our mixed nature which we have especially in view as often as we think of self; that by which we began to exist, and continue to exist, — by which, in every moment of our being, we have rejoiced, and hoped, and feared, and loved; or rather, it is that which has been itself, in all our emotions, the rejoicer, the hoper, the fearer. To inquire into the history of the mind, therefore, is in truth to look back, as far as it is permitted to us to look back, on the whole history of our life. It is to think of those many pleasing emotions which delighted us when present, or of those sadder feelings, which, when considered as past, become delightful, almost like the feelings that were in themselves originally pleasing, and, in many cases, are reviewed with still greater interest. We cannot attempt to think of the origin of our knowledge, without bringing before us scenes and persons most tenderly familiar; and though the effect of such remembrances is perhaps less powerful, when the mind is prepared for philosophical inves-

tigation, than in moments in which it is more passive, still the influence is not wholly lost. He must be a very cold philosopher indeed, who, even in intellectual analysis, can retrace the early impressions of his youth, with as little interest as that with which he looks back on the common occurrences of the past day.

But it is not any slight interest which it may receive from such peculiar remembrances, that can be said to give value to the philosophy of mind. It furnishes, in itself, the sublimest of all speculations, because it is the philosophy of the sublimest of all created things. "There is but one object," says St. Augustine, "greater than the soul, and that one is its Creator." "Nihil est potentius illa creatura quæ mens dicitur rationalis, nihil est sublimius. *Quicquid supra illam est jam Creator est.*" When we consider the powers of his mind, even without reference to the wonders which he has produced on earth, what room does man afford for astonishment and admiration! His senses, his memory, his reason, the past, the present, the future, the whole universe, and, if the universe have any limits, even more than the whole universe, comprised in a single thought; and, amid all these changes of feelings that succeed each other, in rapid and endless variety, a permanent and unchangeable duration, compared with which, the duration of external things is but the existence of a moment.

O what a patrimony this! a being
Of such inherent strength and majesty,
Not worlds possest can raise it; worlds destroy'd
Not injure;¹ which holds on its glorious course
When thine, O nature, ends!²

¹ Can't injure. *Orig.*

² Young's Night Thoughts, vi. 535-539.

Such, in dignity and grandeur, is the mind, considered even abstractly. But when, instead of considering the mind itself, we look to the wonders which it has performed—the cities, the cultivated plains, and all the varieties of that splendid scene to which the art of man has transformed the deserts, and forests, and rocks of original nature; when we behold him, not limiting the operations of his art to that earth to which he seemed confined, but bursting through the very elements, that appeared to encircle him as an insurmountable barrier—traversing the waves—struggling with the winds, and making their very opposition subservient to his course: when we look to the still greater transformations which he has wrought in the moral scene, and compare with the miseries of barbarous life, the tranquillity and security of a well-ordered state; when we see, under the influence of legislative wisdom, innumerable multitudes obeying, in opposition to their strongest passions, the restraints of a power which they scarcely perceive, and the crimes of a single individual marked and punished, at the distance of half the earth; is it possible for us to observe all these wonders, and yet not to feel some curiosity to examine the faculties by which they have been wrought, some interest in a being so noble, that leads us to speculate on the future wonders which he may yet perform, and on the final destiny which awaits him? This interest we should feel, though no common tie connected us with the object of our admiration; and we cannot surely admit that the object of our admiration is less interesting to us, or less sublime in nature, because the faculties which we admire are those which ourselves possess, and the wonders such as we are capable of achieving and surpassing.

LECTURE V.

Of Physical Inquiry.

THE preceding Lectures, Gentlemen, have, I trust, sufficiently convinced you of the importance of the science on which we are to enter, — if, indeed, many of the advantages which we have considered were not of themselves so obvious, as readily to have occurred to your own reflection, or at least to require less illustration, than, in my desire to interest not your attention merely, but your zealous ardour in a science which appears to me so truly to deserve it, I have thought necessary to give them. We have seen, how interesting the mind is, as an object of study, from its own intrinsic excellence, even though it were to be considered in no other light, than as a mere part of the universal system of things, necessary, therefore, to be comprehended with every other existing substance, in a system of general physics. We have seen, likewise, in how many important respects, the study of the science of mind is favourable to the growth of virtuous sentiment, and to the refinement and happiness of society; and, above all, how essential an acquaintance with it is, to the proper conduct of our inquiries; not merely in those sciences, the objects of which are kindred or analogous, but in every other science, the various objects of which, however independent, and even remote from it they may seem, must always be considered, not as they exist in themselves, but as they exist in relation to it; since they can be known to us only through the medium of the mental affections, or feelings, excited by them, which

have laws peculiar to themselves, and analyzed and arranged only by our mental faculties, which have their own peculiar limits of extent and power.

The first great division of our course of inquiry is purely physiological. It has for its object the mind, considered as susceptible of various states or affections, and constituting, as it is thus variously affected, the whole phenomena of thought and feeling, which, though expressed by a variety of terms, of functions, or faculties, are still but the one mind, itself existing in different states. On retracing these states, which form the whole progress of our sentient, intellectual, and moral life, we have to inquire into the properties of the substance mind, according to the same laws of investigation by which we inquire into the properties of external substances; not by assuming principles, from which the phenomena may be supposed to flow, but by observing and generalizing, till we arrive at those few simple principles or laws, which, however pompous the term laws may seem, as if it denoted something different from the phenomena themselves, and paramount to them, are, in truth, nothing more than the expression of the most general circumstances, in which the phenomena themselves have been felt by us to agree. As we say of gold, that it is that which is of a certain specific weight, yellow, ductile, fusible at a certain temperature, and capable of certain combinations, — because all these properties have been observed by ourselves or others, — so we say of the mind, that it is that which perceives, remembers, compares, and is susceptible of various emotions or other feelings; because of all these we have been conscious, or have observed them indirectly in others. We are not entitled to state with confidence, any quality, as a property of gold, which we do not re-

member to have observed ourselves, or to have received on the faith of the observation of others, whose authority we have reason to consider as indubitable; and as little are we entitled to assert any quality, or general susceptibility, as belonging to the human mind, of which we have not been conscious ourselves in the feelings resulting from it, or for which we have not the authority of the indubitable consciousness of others. The exact coincidence, in this respect, of the physics of mind and of matter, it is important that you should have constantly before you, that you may not be led to regard the comparative indistinctness and vagueness of the mental phenomena, as a warrant for greater boldness of assertion, and looseness of reasoning with respect to them. There is, on the contrary, in such a case, still greater reason to adhere rigidly to the strict rules of philosophizing; because the less definite the phenomena are, the greater danger is there of being misled in discriminating and classing them. The laws of inquiry, those general principles of the logic of physics, which regulate our search of truth in all things, external and internal, do not vary with the name of a science, or its objects or instruments. They are not laws of one science, but of every science, whether the objects of it be mental or material, clear or obscure, definite or indefinite; and they are thus universal, because, in truth, though applicable to many sciences, they are only laws of the one inquiring mind, founded on the weakness of its powers of discernment, in relation to the complicated phenomena on which those powers are exercised. The sort of reasoning which would be false in chemistry, would be false in astronomy, would be false in the physiology of our corporeal or intellectual and moral nature, and in all, for the same reason; because the mind is the

inquirer in all alike, and is limited, by the very constitution of its faculties, to a certain order of inquiry, which it must, in this case of supposed erroneous reasoning, have transgressed.

On these general laws of inquiry, as relating alike to the investigation of the properties of matter and of mind, it is my intention to dwell, for some time, with full discussion; for, though the subject may be less pleasing, and may require more severe and unremitting attention on your part, than the greater number of the inquiries which await us, it is still more important than any of these, because it is, in truth, essential to them all. The season of your life is not that which gathers the harvest; it is that which prepares the soil, by diligent cultivation, for the fruits which are to adorn and enrich it: or, to speak without a metaphor, you do not come here, that you may make yourselves acquainted, in a few months, with all the phenomena of the universe, — as if it were only to look on the motions of the planets in an orrery, or to learn a few names of substances and qualities, — but that you may acquire those philosophical principles, which, in the course of a long and honourable life, are to enable you to render yourselves more familiar every day with the works of nature, and with the sublime plans of its beneficent Author; and if, without the knowledge of a single wonderful fact, in matter or in mind, it were possible for you to carry away from these walls a clear notion of the objects of inquiry, and of the plan on which alone investigation can be pursued with advantage, I should conceive that you had profited far more than if, with confused notions of the objects and plan of investigation, you carried with you the power of talking fluently of observations, and experiments, and

hypotheses, and systems, and of using, in their proper places, all the hardest words of science.

I must remark, however, that I should not have thought it necessary, thus to direct so much of your attention to the principles of scientific inquiry in general, if I could have taken for granted, that you had already enjoyed the benefit of the instruction of my illustrious colleague in another chair, whose Lectures on Natural Philosophy, exemplifying that soundness of inquiry, which I can only recommend, would, in that case, have enlightened you more, as to the principles of physical investigation, than any mere rules, of which it is possible to point out to you the utility and the excellence.

All physical science, whatever may be the variety of objects, mental or material, to which it is directed, is nothing more than the comparison of phenomena, and the discovery of their agreement or disagreement, or order of succession. It is on observation, therefore, or on consciousness, which is only another name for internal observation, that the whole of science is founded; because there can be no comparison, without observation of the phenomena compared, and no discovery of agreement or disagreement, without comparison. As far, then, as man has observed the phenomena of matter or of mind, so far, and no farther, may he infer, with confidence, the properties of matter and of mind; or, in the words of the great primary aphorism of Lord Bacon, which has been so often quoted, and so often quoted in vain, "*Homo, naturæ minister et interpres, tantum facit et intelligit, quantum de naturæ ordine re vel mente observaverit; nec amplius scit aut potest.*"¹

¹ Nov. Org. Aph. 1.

What is it that we truly mean, however, when we say, that we are about to inquire into the nature and properties of any substance? The question is a most important one, and is far from being so simple as it may at first appear. From the mere misunderstanding of the import of this question, the brightest talents of a long succession of ages,—talents which, with clearer views of this single point, might have anticipated all the discoveries of our own time, and introduced us, perhaps, to discoveries still more brilliant and astonishing,—were wasted in inquiries as barren as the frivolous glory which attended them; that produced indeed much contention, and more pride, but produced nothing more; and, without giving any additional knowledge, took away from ignorance only its humility, and its power of being instructed.

What is it that we truly have in view, or should have in view, when we inquire into the nature of a substance?

The material universe, and all the separate substances which compose it, may be considered in two lights; either simply as composed of parts that coexist, and are to our feelings continuous, so as to form, of many separate and independent elements, one apparent whole; or of parts that change their relative positions, constituting, by this change of place, all the physical events of the material system of the world; and inquiry may have reference to a substance in both, or either of those points of view. What is this body? may be inquired of us, when any particular body is pointed out; and the answer which we give will be very different, according to the particular light in which we may have viewed it, though it must

always relate to it in one or other of these two aspects. Let us suppose, for example, the body, concerning which the question is put, to be a piece of glass; I select intentionally a substance which is familiar to you all, and of which many of you probably have sufficient chemical knowledge to be acquainted with the composition. It may be asked of us, then, What is the substance termed glass? and our answer will vary, as I have said, with the view which we take of it. If we consider it merely as a continuous whole, our answer will be, that it is a compound of alkaline and silicious matter; meaning, that particles of alkali and flint coexist, and are apparently continuous, in that mass of which we speak.

Such is one of the answers which may be given to the question; and this sort of answer is one which is very commonly given to such questions. It is, you will perceive, nothing more than the enumeration of the constituent parts of the substance, and considers the substance simply as it exists alone, without regard to any other bodies that may exist around it, or near it, and without any allusion to change of any kind.

This sort of view, however, may be altogether reversed; and, instead of thinking of the parts that exist together in the substance, without reference to any changes, of which it is either the agent or the subject, we may think only of such changes, without reference to its constituent parts.

In this latter point of view we may say, in answer to the question, as to the nature of the substance termed glass, that it is a transparent substance, which, according to the general laws of refraction, bends the light that passes through it variously, according to the different density of the medium through which the rays have immediately passed before arriving at

it, or of the medium through which they are to pass after penetrating it; that it is a substance fusible at a certain temperature, not dissolved by the common powerful acids, but soluble in a particular acid termed the fluoric acid; that, when strongly rubbed by certain other substances, it communicates, for a time, to various bodies, the power of attracting or repelling other bodies; and we may add to our description, in like manner, as many other qualities as there are various substances which produce in it any change, or are in any way changed by it. In all answers of this kind, you will perceive that regard is uniformly had, not to the mere substance concerning which the question is put, but also to some other substance with which, in consequence of some motion of one or other of the bodies, at the time of the phenomenon of which we speak, it has changed its relative position; for, if all the objects of nature remained constantly at rest, it is very evident that we could have no notion of any property of matter whatever. In the enumeration of the qualities of glass, for example, when we speak of its properties, we suppose it to have changed, in every case, some relative position with the light that passes through it, the heat that melts it, the fluoric acid that dissolves it, and the various bodies that excite in it, or conduct from it, electricity; and all these bodies, therefore, we must have in view, in our enumeration, as much as the glass itself.

As there are only these two different aspects in which matter can be viewed, all physical inquiry, with respect to matter, must, as I have said, have reference to one of them; and if we think that we are inquiring further concerning it, our inquiry is truly without an object, and we know not what we seek. We may consider it, simply as it exists in space, or as it exists

in time. Any substance, considered as it exists in space, is the mere name which ourselves give to the coexistence of a multitude of bodies, similar in nature, or dissimilar in apparent continuity: considered as it exists in time, it is that which is affected by the prior changes of other bodies, or which itself produces a change of some sort in other bodies. As it exists in space, therefore, we inquire into its composition, or, in other words, endeavour to discover what are the elementary bodies that coexist in the space which it occupies, and that are all which we truly consider, when we think that we are considering the compound as one distinct body. As it exists in time, we inquire into its susceptibilities or its powers, or, in other words, endeavour to trace all the series of prior and subsequent changes, of which its presence forms an intermediate link.

This, then, is our meaning, when we speak of inquiring into the nature of a substance. We have one, or both of two objects in view, the discovery of the separate bodies that coexist in the substance, or rather that constitute the substance, which is nothing more than these separate bodies themselves, or the discovery of that series of changes, of which the presence of this particular substance, in some new relative position with respect to other bodies, forms a part; the changes which other bodies, in consequence of this altered relative position, occasion in it, with the changes which it occasions in other bodies.

On these two different objects of physical investigation, the coexisting elements of bodies, and their successions of changes, it may be of advantage to dwell a little more fully in elucidation of the method which we have to pursue in our own department of physical research; for, though it may perhaps at first

appear to you, that to treat of the principles of inquiry, in the physics of matter, is to wander from the intellectual and moral speculations which peculiarly concern us; it is in truth only as they are illustrative of the inquiries which we are to pursue in the physiology of the mind, that I am led to make these general remarks. The principles of philosophic investigation are, as I have already said, common to all the sciences. By acquiring more precise notions of the objects of any one of them, we can scarcely fail to acquire, in some degree, more precision in our notions of every other, and each science may thus be said to profit indirectly by every additional light that is thrown upon each. It is by this diffusive tendency of its spirit, almost as much as by its own sublime truths, and the important applications of these to general physics, that the study of geometry has been of such inestimable advantage to science. Those precise definitions which ensure to every word the same exact signification, in the mind of every one who hears it pronounced, and that lucid progress, in the development of truth after truth, which gives, even to ordinary powers, almost the same facility of comprehension with the highest genius, are unquestionably of the utmost benefit to the mathematical student while he is prosecuting his particular study, without any contemplation of other advantages to be reaped from them. But there can be no doubt that they are, at the same time, preparing his mind for excellence in other inquiries, of which he has then no conception; that he will ever after be less ready to employ, and be more quick-sighted than he would otherwise have been, in detecting vague and indefinite phraseology, and loose and incoherent reasoning; and that a general spirit of exactness and perspicuity may thus

at length be diffused in society, which will extend its influence, not to the sciences merely, but, in some faint degree also, to works of elegant literature, and even to the still lighter graces of conversation itself. "The spirit of geometrical inquiry," says Fontenelle, "is not so exclusively attached to geometry, as to be incapable of being applied to other branches of knowledge. A work of morals, of politics, of criticism, or even of eloquence, will, if all other circumstances have been the same, be the more beautiful, for having come from the hand of a geometrician. The order, the clearness, the precision, which, for a considerable time, have distinguished works of excellence on every subject, have most probably had their origin in that mathematical turn of thought, which is now more prevalent than ever, and which gradually communicates itself even to those who are ignorant of mathematics. It often happens that a single great man gives the tone to the whole age in which he lives; and we must not forget, that the individual who has the most legitimate claim to the glory of having introduced and established a new art of reasoning, was an excellent geometer."¹ The philosopher to whom this improvement of the art of reasoning is ascribed, is evidently Descartes, whose claim is certainly much less legitimate than that of our own illustrious countryman; but the works of Bacon were not very extensively studied on the continent, at the time at which Fontenelle wrote; while, especially in France, the splendid reputation of the great geometer, who shook, as much with his own wild hypotheses as with the weight of his reasoning, the almost idolatrous worship of the god of the schools, seemed to sweep before it

¹ Préface aux Eloges — Œuvres, tom. v. p. 8.

the glory of every other reformer. The instance of Descartes, however, is a still more happy one than his ingenious countryman, who was himself a Cartesian, could have imagined it to be. It is, indeed, impossible to conceive a more striking example of that diffusive influence of the general spirit of scientific inquiry, which I wished to illustrate; since, in this instance, it survived the very system by which it was diffused; all that was sceptical in that mixed system of scepticism and dogmatism which constituted the general spirit of the philosophy of Descartes, having long continued, and even now continuing, to operate beneficially, when scarcely a doctrine of his particular philosophy retains its hold.

You will not then, I trust, take for granted, that precise notions as to the objects of inquiry, in any science, even in the department of external physics, can be absolutely without benefit to our plans of inquiry into mind, which must be pursued on the same principles, if it be pursued with any prospect of success; and I may, therefore, safely solicit your attention to a little farther elucidation of the two objects which we have in view, in general physical inquiry, whether it be relative to matter or to mind.

To inquire into the composition of a substance, is to consider as one, many substances, which have not the less an independent existence, because they are in immediate proximity to each other. What we term a body, however minute, is a multitude of bodies, or, to speak more exactly, an infinite number of bodies, which appear limited to us, indeed, but may perhaps appear, in their true character of infinity, to beings of a higher order, who may be able to distinguish as infinite, what our limited senses allow us to perceive only as finite. They are one, not in nature, but in our

thought ; as one thousand individuals, that in nature must always be one thousand, receive a sort of unity that is relative merely to our conception, when ranked by us a single regiment, or as many regiments become one by forming together an army. In the congeries of external matter, the innumerable separate bodies are thus regarded by us as one, when the space which divides them is not measurable by our imperfect vision, and as distinct or separate, when the space can be measured by us. The unity of the aggregate is hence no absolute quality of the mass, but is truly relative to the observer's power of distinguishing the component parts ; the mass being one or many, as his senses are less or better able to distinguish these. This whole globe of earth, with its oceans, and rivers, and mountains, and woods, and with all the separate multitudes of its animated inhabitants, may seem, to some being of another species, only one continuous and uniform mass ; as the masses, that seem to us uniform and continuous, may seem a whole world of separate and varied parts, to the insect population that swarms upon its surface. " A single leaf of a tree," to borrow an obvious illustration from a French writer, " is a little world inhabited by invisible animals, to whose senses it appears of immense extent, who see in it mountains and abysses that are almost immeasurable, and who, from one side of the leaf to the other, hold as little communication with the opposite animalculæ, who have their dwellings there, as we do with our antipodes." ¹

Nothing can appear to our eyes more uniform than a piece of glass ; yet we know, from its composition as a product of art, that it is a congeries of bodies,

¹ Fontenelle, *Pluralité des Mondes*, Conversat. 3.

which have no similarity to each other, and which truly exist separately from each other, in the compound, as they existed separately before the composition, though the lines of space which divide them have now ceased to be visible to our weak organs; and though, instead of being composed of alkaline and silicious matter, which we know to be different in their qualities, the beautiful transparent substance, considered by us, were, as far as we knew, simple in the chemical sense of the term, it would still be as truly an aggregate of many bodies, not dissimilar, indeed, as in the former case, but each similar, in qualities to the aggregate itself. The aggregate, in short, is, in every case, but a name invented by ourselves; and what we term the constituent elements, are all that truly exist. To inquire into the composition of a body is, therefore, only to inquire what those separate bodies are which we have chosen to consider as one, or rather which are ranked by us as one, from their apparent continuity.

I have dwelt the longer on this point of the unity of an aggregate mass, as derived from the mind of the observer only, and not from its constituent bodies, which are truly separate and independent of each other, and must always be separate and independent, whatever changes they may seem to undergo, in the various processes of composition and decomposition; because this is one of the most simple, and, at the same time, one of the most convincing examples of a tendency of the mind, which we shall often have occasion to remark, in the course of our intellectual analysis,—the tendency to ascribe to substances without, as if existing in them like permanent physical qualities, the relations which ourselves have formed, by the mere comparison of objects with objects, and which,

in themselves, as relations, are nothing more than modifications of our own mind. It is very difficult for us to believe, that, when we speak of a rock, or a mountain, or, perhaps, still more, when we speak of a single leaf or blade of grass as one, we speak of a plurality of independent substances, which may exist apart, as they now exist together, and which have no other unity than in our conception. It is the same with every other species of relation. The tallness of a tree, the lowliness of a shrub or weed, as these relative terms are used by us in opposition, do not express any real quality of the tree, or shrub, or weed, but only the fact that our mind has considered them together; all which they express, is the mere comparison that is in us, not any quality in the external objects; and yet we can scarcely bring ourselves to think, but that, independently of this comparison, there is some quality in the tree, which corresponds with our notion of tallness, and some opposite quality in the shrub or weed, which corresponds with our notion of shortness or lowliness; so that the tree would deserve the name of tall, though it were the only object in existence, and the shrub or weed, in like manner, the epithet of lowly, though it alone existed, without a single object with which it could be compared. These instances, as I have said, are simple, but they will not be the less useful, in preparing your minds for considering the more important notions of relation in general, that imply, indeed, always some actual qualities in the objects themselves, the perception of which leads us afterwards to consider them as related, but no actual quality in either of the objects that primarily and directly corresponds with the notion of the relation itself, as there are qualities of objects that correspond directly with our sensations

of warmth or colour, or any other of the sensations excited immediately by external things. The relation is, in every sense of the word, mental, not merely as being a feeling of the mind, for our knowledge of the qualities of external things is, in this sense, equally mental, but, as having its cause and origin directly in the very nature of the mind itself, which cannot regard a number of objects, without forming some comparison, and investing them consequently with a number of relations. I have already spoken of the intellectual medium, through which external objects become known to us; and the metaphor is a just one. The medium, in this case, as truly as in the transmission of light, communicates something of its own to that which it conveys; and it is as impossible for us to perceive objects long or often together, without that comparison which instantly invests them with certain relations, as it would be for us to perceive objects, for a single moment, free from the tint of the coloured glass through which we view them. "*Omnes perceptiones,*" says Lord Bacon, using a similar figure, "*omnes perceptiones, tam sensûs quam mentis, sunt ex analogia hominis, non ex analogia universi; estque intellectus humanus instar speculi inæqualis ad radios rerum, qui suam naturam naturæ rerum immiscet, eamque distorquet et inficit.*"

But, whatever may be thought of relations in general, there can be no question, at least, as to the nature of that unity which we ascribe to bodies. We have seen, that the substance which, in thought, we regard as one, is in truth, not one, but many substances, to which our thought alone gives unity; and that all inquiry, therefore, with respect to the nature of a substance, as it exists in space, is an inquiry into the

nature of those separate bodies, that occupy the space which we assign to the imaginary aggregate.

To dissipate this imaginary aggregate of our own creation, and to show us those separate bodies which occupy its space, and are all that nature created, is the great office of the analytic art of chemistry, which does for us only what the microscope does, that enables us to see the small objects, which are before us at all times, without our being able to distinguish them. When a chemist tells us, that glass, which appears to us one uniform substance, is composed of different substances, he tells us, what, with livelier perceptive organs, we might have known, without a single experiment; since the silicious matter and the alkali were present to us in every piece of glass, as much before he told us of their presence, as after it. The art of analysis, therefore, has its origin in the mere imperfection of our senses, and is truly the art of the blind, whose wants it is always striving to remedy, and always discovering sufficient proof of its inability to remedy them.

We boast, indeed, of the chemical discoveries which we have made of late, with a rapidity of progress as brilliant as it is unexampled in the history of any other science; and we boast justly, because we have found what the generations of inquirers that have preceded us on our globe, far from detecting, had not even ventured to guess. Without alluding to the agency of the galvanic power, by which all nature seems to be assuming before us a different aspect, we have seen fixed in the products of our common fires, and in the drossy rust of metals, the purest part of that ethereal fluid which we breathe, and the air itself, which was so long considered as simple, ceasing to be

an element. Yet, whatever unsuspected similarities and diversities of composition we may have been able to trace in bodies, all our discoveries have not created a single new particle of matter. They have only shown these to exist, where they always existed, as much before our analysis as after it ; unmarked indeed, but unmarked only because our senses alone were not capable of making the nice discrimination. If man had been able to perceive, with his mere organs of sense, the different particles that form together the atmospheric air ; if he had at all times seen the portion of these which unites with the fuel that warms him, enter into this union, as distinctly as he sees the mass of fuel itself, which he flings into his furnace, he could not have thought it a very great intellectual achievement, to state in words so common and familiar a fact, the mere well-known change of place of a few well-known particles ; and yet this is what, in the imperfect state of his perceptive organs, he so proudly terms his *Theory of Combustion*, the development of which was hailed by a wondering world, and in these circumstances, justly hailed by it as a scientific era. To beings, capable of perceiving and distinguishing the different particles that form, by their aggregation, those small masses which, after the minutest mechanical division of which we are capable, appear atoms to us, the pride which we feel in our chemical analyses, must seem as ludicrous as to us would seem the pride of the blind, if one, who had never enjoyed the opportunity of beholding the sun, were to boast of having discovered, by a nice comparison of the changing temperature of bodies, that, during certain hours of the day, there passed over our earth some great source of heat. The addition of one new sense to us, who have already the inestimable

advantages which vision affords, might probably, in a few hours, communicate more instruction, with respect to matter, than all which is ever to repay and consummate the physical labours of mankind; giving, perhaps, to a single glance, those slow revelations of nature which, one by one, at intervals of many centuries, are to immortalize the future sages of our race.

"All philosophy," says an acute foreign writer, "is founded on these two things, — that we have a great deal of curiosity, and very bad eyes. In astronomy, for example, if our eyes were better, we should then see distinctly, whether the stars really are, or are not, so many suns, illuminating worlds of their own; and if, on the other hand, we had less curiosity, we should then care very little about this knowledge, which would come pretty nearly to the same thing. But we wish to know more than we see, and there lies the difficulty. Even if we saw well the little which we do see, this would at least be some small knowledge gained. But we observe it different from what it is; and thus it happens that a true philosopher passes his life, in not believing what he sees, and in labouring to guess what is altogether beyond his sight. I cannot help figuring to myself," continues the same lively writer, "that nature is a great public spectacle, which resembles that of the opera. From the place at which we sit in the theatre we do not see the stage quite as it is. The scenes and machinery are arranged, so as to produce a pleasing effect at a distance; and the weights and pulleys, on which the different movements depend, are hid from us. We therefore do not trouble our heads with guessing, how this mechanical part of the performance is carried on. It is perhaps only some mechanist, concealed amid the crowd of the pit, who racks his brain about a flight through the air,

which appears to him extraordinary, and who is seriously bent on discovering by what means it has been executed. This mechanist gazing, and wondering, and tormenting himself, in the pit of the opera, is in a situation very like that of the philosopher in the theatre of the world. But what augments the difficulty to the philosopher, is, that, in the machinery which nature presents, the cords are completely concealed from him; so completely, indeed, that the constant puzzle has been to guess, what that secret contrivance is, which produces the visible motions in the frame of the universe. Let us imagine all the sages collected at an opera,—the Pythagorases, Platos, Aristotles, and all those great names, which now-a-days make so much noise in our ears. Let us suppose, that they see the flight of Phaeton, as he is represented carried off by the Winds; that they cannot perceive the cords to which he is attached; and that they are quite ignorant of every thing behind the scenes. It is a secret virtue, says one of them, that carries off Phaeton. Phaeton, says another, is composed of certain numbers, which cause him to ascend. A third says, Phaeton, has a certain affection for the top of the stage. He does not feel at his ease, when he is not there. Phaeton, says a fourth, is not formed to fly; but he likes better to fly, than to leave the top of the stage empty,—and a hundred other absurdities of the kind, that might have ruined the reputation of antiquity, if the reputation of antiquity for wisdom could have been ruined. At last, come Descartes, and some other moderns, who say, Phaeton ascends, because he is drawn by cords, and because a weight, more heavy than he, is descending as a counterpoise. Accordingly, we now no longer believe, that a body will stir, unless it be drawn or impelled by some other

body, or that it will ascend, or descend, unless by the operation of some spring or counterpoise ; and thus to see nature, such as it really is, is to see the back of the stage at the opera.”¹

In this exposition of the phenomena of the universe, and of those strange “follies of the wise,” which have been gravely propounded in the systems of philosophers concerning them, there is much truth as well as happy pleasantry. As far, at least, as relates to matter, considered merely as existing in space, — the first of the two lights in which it may be physically viewed, — there can be no question that philosophy is nothing more than an endeavour to repair, by art, the badness of our eyes, that we may be able to see what is actually before us at every moment. To be fairly behind the scenes of the great spectacle of nature, however, is something more than this. It is not merely to know, at any one moment, that there are many objects existing on the stage, which are invisible where the spectators sit, but to know them as pieces of machinery, and to observe them operating in all the wonders of the drama. It is, in short, to have that second view of nature, as existing in time as well as space, to the consideration of which I am to proceed in my next Lecture.

LECTURE VI.

The same subject continued.

IN my last Lecture, Gentlemen, I considered at some length the nature of physical inquiry in general,

¹ Fontenelle, *Pluralité des Mondes*, Conversat. 1.

and stated to you, in particular, the two lights in which objects may be physically viewed, as existing simply in space, or as existing in time ; the inquiries with respect to the one, having regard to the composition of bodies ; the inquiries, with respect to the other, having regard to the changes, of which they are either the subjects or occasions, and consequently to their susceptibilities or their powers : their susceptibilities of being affected by other substances, their powers of affecting other substances. I use the word susceptibility, you will perceive, as in this case synonymous with what Mr. Locke, and some other writers, have denominated passive power, to avoid the apparent verbal contradiction, or at least the ambiguity, which may arise from annexing the term passive to a word which is generally employed to signify, not the subject of change, but the cause or occasion of change.

Of these two points of view, then, in which an object may be regarded, when the question is put, What is it? we have seen, I hope, sufficiently distinctly, the nature of one. If, in answering the question, we regard the object merely as it exists in space, and say that it is a compound of certain substances, we mean nothing more than that, in the portion of space which we conceive to be occupied by this one imaginary aggregate, there is truly a plurality of bodies, which, though seemingly contiguous, have an existence as separate and independent of each other as if they were at the most remote distance ; the one aggregate being nothing more than a name for these separate bodies, to which ourselves give all the unity which they have, merely by considering them as one.

The necessity of inquiring into the nature of these separate elementary bodies, — which constitutes one of the two great departments of physical investiga-

tion,—we found to arise from the imperfection of our senses, that are not sufficiently acute to discover, of themselves, the component parts of the masses, which nature every where presents to us. We are thus obliged to form to ourselves an art of analysis, merely that we may perceive what is constantly before our eyes, in the same manner as we are obliged to have recourse to the contrivances of the optician, to perceive stars and planets that are incessantly shedding on us their light.

There is, indeed, something truly worthy of our astonishment, in the sort of knowledge of the qualities of matter, which, with our very imperfect senses, we are still able to attain. What we conceive ourselves to know is an aggregate of many bodies, of each of which, individually, we may be said, in the strictest sense of the term, to be absolutely ignorant; and yet the aggregate, which we know, has no real existence, but as that very multitude of bodies, of which we are ignorant. When water was regarded as a simple substance, every one, who looked upon a lake or a river, conceived that he knew as well what the liquid was which flowed in it as the chemist, who now considers it as compound; and the chemist who has learned to regard it as compound, is perhaps as ignorant of the true nature of the separate bodies that exist in it, as those who formerly regarded it as simple; since one additional discovery may prove the very elements, which he now regards as the ultimate constituents of water, to be truly compounded of other elements, still more minute, and now altogether unknown to him.

That our only knowledge of matter should be of a multitude of bodies, of the nature of each of which, individually, we are in absolute ignorance, may seem,

at first sight, to justify many of the most extravagant doubts of the sceptic: and yet there is really no ground for such scepticism, since, though the co-existing bodies be separately unknown, the effect, which they produce when co-existing in the circumstances observed by us, is not the less certain and definite; and it is this joint effect of the whole, thus certain and definite, which is the true object of our knowledge; not the uncertain effect, which the minuter elements might produce, if they existed alone. The same aggregates, whatever their elementary nature may be, operate on our senses, as often as they recur, in the same manner; the unknown elements which constitute an oak, or a tower, or the ivy that clings around it, exciting in the mind those particular sensations to the external causes of which we continue to give the name of oak, or tower, or ivy; and exciting these, as precisely and uniformly as if we were acquainted with each minute element of the objects without. Our knowledge of nature must, in this way, indeed, be confined to the mixed effects of the masses which it exhibits; but it is not on that account less valuable, nor less sure; for to the certainty of this limited knowledge all which is necessary is uniformity of the mixed effects, whatever their unknown, coexisting causes may be. It is with masses only, not with elements, that we are concerned, in all the important purposes of life; and the provident wisdom of the Author of Nature, therefore, has, in this, as in every other case, adapted our powers to our necessities,—giving to all mankind the knowledge that is requisite for the purposes which all mankind must equally have in view; and leaving, to a few philosophic inquirers, the curiosity of discovering what the substances around us truly are in their elementary state, and the

means of making continual progress in this never-ending analysis.

Such, then, is the nature of one of the views in which physical inquiry may be directed, to the discovery of elements that are existing together at the same moment. But is not this species of inquiry, it may be asked, peculiar to matter, or may it also be extended to mind? It is easy to conceive that, if matter always have extension, and therefore necessarily be composed of parts, an inquiry into its composition may form an important part of physical investigation; but this sort of inquiry will seem to you altogether inadmissible in the philosophy of mind, since the mind is not composed of parts that coexist, but is simple and indivisible. If, indeed, the term composition, in this application of it, be understood strictly in the same sense as when applied to matter, it is very evident that there can be no inquiry into the composition of thoughts and feelings, since every thought and feeling is as simple and indivisible as the mind itself; being, in truth, nothing more than the mind itself, existing at a certain moment in a certain state; and yet, in consequence of some very wonderful laws which regulate the successions of our mental phenomena, the science of mind is, in all its most important respects, a science of analysis, or at least a science which exhibits to our contemplation the same results as if it were strictly analytical; and we inquire into the separate ideas or other feelings, involved in one complex thought or emotion, very nearly as we inquire into the corpuscular elements that coexist in one seemingly continuous mass. The nature of this very wonderful application of analysis, or at least of a process which is virtually the same as analysis, to a substance that is necessarily at all times simple and

indivisible, will, however, be better understood by you, after we have turned our attention to the other general division of physical inquiry, which is still to be considered by us. I need not, I hope, repeat, after the remarks which I made in my last lecture, that, in leading your thoughts for so long a time to the subject of general science, I have had constantly in view its application to the phenomena of our own department of it; and that we are truly learning to study mind with accuracy, when we are learning what it is which is to be studied in the great system of things. There can be no question, at least, that he who has erroneous notions of the objects of physical investigation in the material universe, will be very likely also to err, or rather cannot fail to err, in his notions of the objects of physical investigation, as it relates to mind.

I proceed, then, to consider, what it is which we truly have in view, when we direct our inquiry, not to the mere composition of objects existing continuously in space, but to the succession of changes which they exhibit in time; to their susceptibility of being affected by other substances, or their power of affecting other substances. The inquiry, as you must perceive, involves the consideration of some words about which a peculiar mystery has been very generally supposed to hang—causation, power, connexion of events. But we shall perhaps find that what is supposed so peculiarly mysterious in them, is not in the very simple notions themselves, but in the misconceptions of those who have treated of them.

It is not in this case, as in the former department of physical investigation, the mere imperfection of our senses, that produces the necessity of inquiry. Matter, as existing in space, is wholly before us; and all which

is necessary for perfect knowledge of it, in this respect, is greater delicacy of our perceptive organs, that we may distinguish every element of the seemingly continuous mass. To know the mere composition of a substance, is to know only what is actually present at the very moment, which we may imagine senses of the highest perfection to be capable of instantly perceiving ; but to know all the susceptibilities and powers of a substance, the various modes in which it may affect or be affected by every other substance in nature, is to know it, not merely as it exists before us in the particular circumstances of any one moment, but as it might have existed, or may exist, in all possible circumstances of combination ; which our senses, that are necessarily confined to the circumstances of the present moment, never could teach us, even though they were able to distinguish every atom of the minutest mass.

If, indeed, there were any thing, in the mere appearance of a body, which could enable us to predict the changes that would take place in it, when brought into every possible variety of situation, with respect to other bodies, or the changes which it would then produce in those other bodies, the two views, into which I have divided physical inquiry, would coincide exactly ; so that to know the continuous elements of any substance, would be to know, at the same time, its susceptibilities and powers. But there is nothing, in the mere sensible qualities of bodies, considered separately, that can give us even the slightest intimation of the changes, which, in new circumstances of union, they might reciprocally suffer or produce. Who could infer, from the similar appearance of a lump of sugar and a lump of calcareous spar, that the one would be soluble in water,

and the other remain unmelted ; or, from the different aspect of gunpowder and snow, that a spark would be extinguished, if it fell upon the one, and, if it fell upon the other, would excite an explosion that would be almost irresistible? But for experience, we should be altogether incapable of predicting any such effects, from either of the objects compared ; or, if we did know, that the peculiar susceptibility belonged to one of the two, and not to the other, we might as readily suppose, that calcareous spar would melt in water as sugar, and as readily, that snow as that gunpowder would detonate, by the contact of a spark. It is experience alone, which teaches us that these effects ever take place, and that they take place, not in all substances, but only in some particular substances.

It has, indeed, been supposed by many ingenious philosophers, that, if we were acquainted with what they term the intimate structure of bodies, we should then see, not merely what corpuscular changes take place in them, but why these changes take place in them ; and should thus be able to predict, before experience, the effects which they would reciprocally produce. “ I doubt not,” says Locke, “ but if we could discover the figure, size, texture, and motion of the minute constituent parts of any two bodies, we should know without trial several of their operations one upon another, as we do now the properties of a square or a triangle. Did we know the mechanical affections of the particles of rhubarb, hemlock, opium, and a man,—as a watchmaker does those of a watch, whereby it performs its operations, and of a file, which by rubbing on them will alter the figure of any of the wheels,—we should be able to tell beforehand, that rhubarb will purge, hemlock kill, and opium make a man sleep ; as well as a

watchmaker can, that a little piece of paper laid on the balance will keep the watch from going, till it be removed; or that, some small part of it being rubbed by a file, the machine would quite lose its motion, and the watch go no more. The dissolving of silver in aquafortis, and gold in aqua regia, and not *vice versa*, would be then perhaps no more difficult to know, than it is to a smith to understand why the turning of one key will open a lock, and not the turning of another. But whilst we are destitute of senses acute enough to discover the minute particles of bodies, and to give us ideas of the mechanical affections, we must be content to be ignorant of their properties and ways of operation; nor can we be assured about them any farther, than some few trials we make are able to reach. But whether they will succeed again another time, we cannot be certain. This hinders our certain knowledge of universal truths concerning natural bodies: and our reason carries us herein very little beyond particular matter of fact.

“And therefore I am apt to doubt, that how far soever human industry may advance useful and experimental philosophy in physical things, scientific will still be out of our reach; because we want perfect and adequate ideas of those very bodies which are nearest to us, and most under our command. Those which we have ranked into classes under names, and we think ourselves best acquainted with, we have but very imperfect and incomplete ideas of. Distinct ideas of the several sorts of bodies that fall under the examination of our senses perhaps we may have; but adequate ideas, I suspect, we have not of any one amongst them. And though the former of these will serve us for common use and discourse, yet, whilst we want the latter, we are not capable of scientific

knowledge; nor shall ever be able to discover general, instructive, unquestionable truths concerning them. Certainty and demonstration are things we must not, in these matters, pretend to. By the colour, figure, taste, and smell, and other sensible qualities, we have as clear and distinct ideas of sage and hemlock, as we have of a circle and a triangle; but having no ideas of the particular primary qualities of the minute parts of either of these plants, nor of other bodies which we would apply them to, we cannot tell what effects they will produce; nor, when we see those effects, can we so much as guess, much less know, their manner of production. Thus, having no ideas of the particular mechanical affections of the minute parts of bodies that are within our view and reach, we are ignorant of their constitutions, powers, and operations; and of bodies more remote we are yet more ignorant, not knowing so much as their very outward shapes, or the sensible and grosser parts of their constitutions.”¹

The fallacy of the reasoning of this very eminent philosopher consists partly, in the present case, in a sort of *petitio principii*, or, at least, a false assumption that is involved in the very phrase, mechanical affections, and in all the mechanical illustrations adduced. If rhubarb purge, and hemlock kill, by qualities that can be said to be mechanical, and if these qualities be permanent, there can be no question, that to know accurately the mechanical qualities of these substances, in relation to the human body, would be to know, that rhubarb must purge, and hemlock kill, as much as to know the mechanism of a watch would be to know, that the watch must stop if a small part

¹ Essay concerning Human Understanding, book iv. c. 3, sects. 25, 26.

of it were rubbed by a file. But the inquiry is still left, whether it be thus, by the mere principles of mechanical action, that rhubarb and hemlock produce their peculiar effects on the animal system, and that silver is dissolved in aquafortis, and gold in aqua regia; and, if there be no reason whatever to suppose this, we must then surely admit, that the prophecy would still be beyond our power, though we were acquainted with "the figure, size, texture, and motion, of the minute constituent parts" of the different bodies. In the same manner, as, in the mechanical division of a substance, we must still come to other substances capable of further division, so, though we could reduce all the changes that appear to be wrought in the great masses around us, to the changes wrought in their minute parts, we must still come to certain ultimate changes as inexplicable as those which we see at present. It is as difficult to predict, without experience, the motion of one atom to or from another atom, as the motion of one mass of atoms to or from another mass of atoms. That the globe of the earth should tend towards the sun, which is at so great a distance from it, and should thus be every moment arrested within that orbit, from which, if there were no such deflecting force, it would every moment have a tendency to escape by flying off in a straight line, is indeed most wonderful. But precisely the same laws which operate on the whole globe of the earth, operate on every particle of which the earth is composed, since the earth itself is only these separate particles under another name; and if it be wonderful that all of these should have a tendency to approach the sun, it must be equally wonderful, that each minute constituent particle should tend individually, though, to use Mr. Locke's words, we were accurately

acquainted with the "figure, size, texture, and motion of each." The same original mystery of gravitation, then, would remain, though our senses enabled us to discover every gravitating particle in the intimate structure of the gravitating mass. By knowing the intimate structure of bodies, we should, indeed, know what were their elements mutually affected, but not why these elements were mutually affected, or were affected in one way rather than in another.

The chief error of Mr. Locke, in this respect, evidently consisted, as I have said, in his assumption of the very thing to be proved, by taking for granted that all the changes of bodies are the effects of their immediate contact and impulse, and of a kind, therefore, which may be termed strictly mechanical; an assumption, indeed, which harmonized with the mathematical chemistry and medicine of the age in which he lived, but of the justness of which there is not the slightest evidence in the general phenomena, chemical and nervous, of which he speaks. If, instead of confining his attention to the action of bodies in apparent contact, he had turned his thought to the great distant agencies of nature in the motions of the planetary world, it is scarcely possible to conceive that he should not have discovered his mistake. In another of his works, his "Elements of Natural Philosophy," he has stated very justly, as a consequence of the law of gravitation, that if the earth were the sole body in the universe, and at rest, and the moon were suddenly created at the same distance from the earth as at present, the earth and the moon would instantly begin to move towards one another in a straight line. What knowledge of the "figure, size, and texture" of the particles of the earth could have enabled its human inhabitants to predict this

instant change? And if the particles of gold and aqua regia, and of hemlock, rhubarb, and opium, which, together with all the other particles of our globe, would, in the case supposed, instantly begin to move towards the moon,—can thus attract and be attracted, in gravitation, with tendencies that are independent of every mechanical affection,—what authority can there be for supposing, that the chemical and vital agencies of the same particles must be mechanical, or that the one set of changes could have been predicted *a priori*, if the other was confessedly beyond the power of philosophic divination?

But even with regard to the mechanical affections of matter themselves, though all the changes which take place in nature were truly reducible to them, we should still have ultimately the same difficulty in attempting to predict, without experience, the changes that would ensue from them. The mechanical properties are indeed the most familiar to our thought, because they are those which we are constantly witnessing in the great displays of human power that are most striking to our senses. The house, the bridge, the carriage, the vessel, every implement which we use, and the whole wide surface of the cultivated earth, present to us, as it were, one universal trophy of the victories of the great mechanist, man. We cannot look back to the time when we were ignorant of the mechanical properties of matter; but still, there was a time when they first became known to us, and became known by experience of the motions that resulted from them. What can be simpler than the phenomena of impulse? That a ball in motion, when it meets another at rest, should force this to quit its place, appears now to be something which it required no skill or experience to predict; and yet, though our

faculties were, in every respect, as vigorous as now,—if we could imagine this most common of all phenomena to be wholly unknown to us,—what reason should we be able to discover, in the circumstances that immediately precede the shock, for inferring the effect that truly results, rather than any other effect whatever? Were the laws of motion previously unknown, it would be in itself as presumable, that the moving ball should simply stop when it reached the other, or that it should merely rebound from it, as that the quiescent ball should be forced by it to quit its state of rest, and move forward in the same direction. We know indeed that the effect is different, but it is because we have witnessed it that we know it; not because the laws of motion, or any of the mechanical affections of matter whatever, are qualities that might be inferred independently of observation.

Experience, then, is necessary in every case, for discovering the mutual tendencies of the elements of bodies, as much as for determining the reciprocal affections of the masses. But experience teaches us the past only, not the future: and the object of physical inquiry is, not the mere solitary fact of a change which has taken place, but the similar changes which will continually take place, as often as the objects are again in the same circumstances; not the phenomena only, but the powers by which the phenomena are produced.

Why is it, then, we believe that continual similarity of the future to the past, which constitutes, or at least is implied, in our notion of power? A stone tends to the earth,—a stone will always tend to the earth,—are not the same proposition; nor can the first be said to involve the second. It is not to experience, then, alone that we must have recourse for the origin of

the belief, but to some other principle which converts the simple facts of experience into a general expectation, or confidence, that is afterwards to be physically the guide of all our plans and actions.

This principle, since it cannot be derived from experience itself, which relates only to the past, must be an original principle of our nature. There is a tendency in the very constitution of the mind from which the expectation arises,—a tendency that, in every thing which it adds to the mere facts of experience, may truly be termed instinctive; for though that term is commonly supposed to imply something peculiarly mysterious, there is no more real mystery in it than in any of the simplest successions of thought, which are all, in like manner, the results of a natural tendency of the mind to exist in certain states, after existing in certain other states. The belief is, a state or feeling of the mind as easily conceivable as any other state of it,—a new feeling, arising in certain circumstances as uniformly as in certain other circumstances. There arise other states or feelings of the mind, which we never consider as mysterious; those, for example, which we term the sensations of sweetness or of sound. To have our nerves of taste or hearing affected in a certain manner, is not, indeed, to taste or to hear, but it is immediately afterwards to have those particular sensations; and this merely because the mind was originally so constituted, as to exist directly in the one state after existing in the other. To observe, in like manner, a series of antecedents and consequents, is not, in the very feeling of the moment, to believe in the future similarity, but, in consequence of a similar original tendency, it is immediately afterwards to believe, that the same antecedents will invariably be followed by the same

consequents. That this belief of the future is a state of mind very different from the mere perception or memory of the past, from which it flows, is indeed true; but what resemblance has sweetness, as a sensation of the mind, to the solution of a few particles of sugar on the tongue; or the harmonies of music, to the vibration of particles of air? All which we know, in both cases, is, that these successions regularly take place; and in the regular successions of nature, which could not, in one instance more than in another, have been predicted without experience, nothing is mysterious, or every thing is mysterious. It is wonderful, indeed,—for what is not wonderful?—that any belief should arise as to a future which as yet has no existence; and which, therefore, cannot, in the strict sense of the word, be an object of our knowledge. But, when we consider who it was who formed us, it would, in truth, have been more wonderful, if the mind had been so differently constituted that the belief had not arisen; because, in that case, the phenomena of nature, however regularly arranged, would have been arranged in vain; and that Almighty Being, who, by enabling us to foresee the physical events that are to arise, has enabled us to provide for them, would have left the creatures, for whom he has been so bounteously provident, to perish, ignorant and irresolute, amid elements that seemed waiting to obey them; and victims of confusion, in the very midst of all the harmonies of the universe.

Mr. Hume, indeed, has attempted to show, that the belief of the similarity of future sequences of events is reducible to the influence of custom, without the necessity of any intuitive expectation; but he has completely failed in the reasoning with which he has

endeavoured to support this opinion. Custom may account for the mere suggestion of one object by another, as a part of a train of images, but not for that belief of future reality, which is a very different state of mind, and which, perhaps, does not follow every such suggestion, however frequent and habitual. The phenomenon A, a stone has a thousand times fallen to the earth; the phenomenon B, a stone will always, in the same circumstances, fall to the earth — are propositions that differ as much as the propositions, A, a stone has *once* fallen to the earth; B, a stone will *always* fall to the earth. At whatever link of the chain we begin, we must still meet with the same difficulty — the conversion of the past into the future. If it be absurd to make this conversion at one stage of inquiry, it is just as absurd to make it at any other stage; and, as far as our memory extends, there never was a time at which we did not make the instant conversion; no period, however early, at which we were capable of knowing that a stone had fallen, and yet believed that, in exactly the same circumstances, there was no reason to suppose that it would fall again. But on this particular error of Mr. Hume, the very narrow outline, within which the present sketch is necessarily bounded, will not permit me to enlarge. I have examined it, at considerable length, in the third edition of the Inquiry, which I have published on the Relation of Cause and Effect.

It is more immediately our present purpose to consider, What it truly is which is the object of inquiry, when we examine the physical successions of events, in whatever manner the belief of their similarity of sequence may have arisen? Is it the mere series of regular antecedents and consequents themselves? or,

Is it any thing more mysterious, which must be supposed to intervene and connect them by some invisible bondage ?

We see, in nature, one event followed by another. The fall of a spark on gunpowder, for example, followed by the deflagration of the gunpowder ; and, by a peculiar tendency of our constitution, which we must take for granted, whatever be our theory of power, we believe that, as long as all the circumstances continue the same, the sequence of events will continue the same ; that the deflagration of gunpowder, for example, will be the invariable consequence of the fall of a spark on it : in other words, we believe the gunpowder to be susceptible of deflagration on the application of a spark, and a spark to have the power of deflagrating gunpowder.

There is nothing more, then, understood, in the trains of events, however regular, than the regular order of antecedents and consequents which compose the train ; and between which, if any thing else existed, it would itself be a part of the train. All that we mean, when we ascribe to one substance a susceptibility of being affected by another substance, is, that a certain change will uniformly take place in it when that other is present ; — all that we mean, in like manner, when we ascribe to one substance a power of affecting another substance, is, that, when it is present, a certain change will uniformly take place in that other substance. Power, in short, is significant, not of any thing different from the invariable antecedent itself, but of the mere invariableness of the order of its appearance in reference to some invariable consequent, — the invariable antecedent being denominated a cause, the invariable consequent an effect. To say that water has the power of dissolving salt,

and to say, that salt will always melt when water is poured upon it, are to say precisely the same thing: there is nothing in the one proposition which is not exactly, and to the same extent, enunciated in the other.

It would, indeed, be a very different theory of causation, if, without taking into account the important circumstance of invariableness, or the uniform certainty of being at all times followed by a particular event, we were to say, that power is mere antecedence; for there can be no question, that phenomena precede other phenomena, which we never consider as having any permanent relation to them. They are regarded as antecedents, but not invariable antecedents; and the reason of this is obvious. Innumerable events are constantly taking place together in the immense system of the universe. There must, therefore, always be innumerable coexisting series, the parts of each of which, though permanently related to each other, may have no permanent relation to the parts of the other series; and one event of one series may thus precede, not its own effect merely, which is to be its constant and uniform attendant, in all similar circumstances, but the events also of other coexisting series, which may never occur with it again at the same moment. There is no superstition in believing that an eclipse may be followed by a pestilence, or an unpleasant dream, by some unforeseen calamity of the day, though there would be much superstition in believing, that these antecedents and consequents had any permanent relation to each other. In ordinary and familiar cases, at least, every one knows sufficiently the distinction of what is thus casual only, and what is invariable in the order of nature. Yet it is only by losing all sight of a distinction so very obvious,

and confounding invariable with casual sequences, that Dr. Reid, and other eminent philosophers, have been led into much laborious argumentation, in the confidence of confuting one of the simplest and justest of metaphysical opinions. To prove that power is more than invariable antecedence, they prove that it is more than casual antecedence, and that events do not follow each other, loosely and confusedly, as if antecedents could be invariable, which had not consequents as invariable, or, as if a uniform series were not merely another name for a number of uniform antecedents and consequents. A cause is, perhaps, not that which has merely once preceded an event: but we give the name to that which has always been followed by a certain event, is followed by a certain event, and, according to our belief, will continue to be in future followed by that event, as its immediate consequent; and causation, power, or any other synonymous words which we may use, express nothing more than this permanent relation of that which has preceded to that which has followed. If this invariableness of succession, past, present, and future, be not that which constitutes one event the effect of another, Dr. Reid, at least, has not pointed out any additional circumstance which we must combine with it, in our definition of an effect, though he has shown, indeed, with most abundant evidence, if any evidence at all were necessary, that the antecedents and consequents are not the same; that we use active and passive verbs in different senses, applying, as might well be supposed, the one to the antecedent, the other to the consequent; that we speak of effects and causes as if truly different, since it is unquestionably not the same thing to follow uniformly a certain change, and to precede uniformly a certain change, and that we

never think of giving those names where we do not conceive that there is some permanent relation. But, though these distinctions might be allowed to have irresistible weight, in opposition to the scepticism, if such extravagant scepticism there ever were, which affirmed the sequences of events to be altogether casual and irregular, they are surely of no weight against that simple definition of power, which affirms it to consist in the certainty of the invariable sequence of some event as its immediate consequent; since this very regularity of the sequences, which is supposed by the definition, must, of itself, have given occasion to all those distinctions of thought and language which Dr. Reid has adduced.

That one event should invariably be followed by another event, is indeed, it will be allowed, as every thing in nature is, most wonderful, and can be ascribed only to the infinite source of every thing wonderful and sublime; the will of that divine Being, who gave the universe its laws, and who formed these with a most beneficent arrangement for the happiness of his creatures; who, without a belief in the uniformity of these laws, to direct their conduct, could not have known how to preserve even their animal existence. But the uniformity of succession is surely not rendered less wonderful, by a mere change of name. It is the same unaltered wonder still, when we ascribe the term power to the prior of two events as when we ascribe to it the exactly synonymous phrase invariableness of antecedence; each of these terms implying nothing more than that the one event cannot take place without being immediately followed by the other. The permanence and uniformity of the relation are the essential circumstances. To be that which cannot exist, without being instantly followed by a certain

event, is to be the cause of the event, as a correlative effect. It is impossible for us to believe, that the invariable antecedent is any thing but the cause, or the cause any thing but the invariable antecedent ; as it is impossible for us to believe that *homo* is the Latin synonyme of *man*, and yet that *man* is not the English synonyme of *homo*.

To know the powers of nature, is, then, nothing more than to know what antecedents are and will be invariably followed by what consequents ; for this invariableness, and not any distinct existence, is all which the shorter term power, in any case, expresses ; and this, and this alone, is the true object of physical inquiry, in that second point of view, in which we have considered it, as directed to the successions of events.

Whenever, therefore, the question is put, as to any object, What is it ? there are two answers, and only two answers, that can be given with meaning. We may regard it as it exists in space, and state the elements that coexist in it, or rather that constitute it ; or we may regard it as it exists in time, and state, in all the series of changes, of which it forms an invariable part, the objects to which it is related as antecedent or consequent.

To combine these two views of nature, as it exists in space and time, and to know, with perfect accuracy, every element of every aggregate, and every series of changes, of which each forms, or can form, a part, would be to know every thing which can be physically known of the universe. To extend our mere physical inquiry still farther into the phenomena of nature, after this perfect knowledge, would be to suppose erroneously, that, in the compounds before us, of which we know every element, there is some element not

yet discovered, or, in the well-known successions of events, some antecedent or consequent as yet unobserved; or it would be to inquire without any real object of inquiry,—a sort of investigation which, for two thousand years, was almost the sole employment of the subtle and the studious, and which is far from having perished, with those venerable follies of the schools, at which we know so well how to smile, even while we are imitating them, perhaps, with similar errors of our own. I cannot but think, for example, that, on this very subject of the connexion of events, the prevalent notions and doctrines, even of very eminent philosophers, are not far advanced beyond the verbal complexity of the four causes of which Aristotle treats, the *material*, the *formal*, the *efficient*, and the *final*; or Plato's five causes, which Seneca, in one of his Epistles, briefly defines the *id ex quo*, the *id a quo*, the *id quo*, the *id ad quod*, and the *id propter quod*; ¹ and though there were no other evidence than this one subject affords, it would still, I fear, prove sufficiently, that, with all our manifest improvements in our plans of philosophical investigation, and all the splendid discoveries to which these improvements have led, we have not wholly lost that great art, which, for so long a time, supplied the place of the whole art of philosophizing—the art of inquiring assiduously, without knowing what we are inquiring about.

It is an art, indeed, which there is too much reason to suppose will accompany philosophy, though always, it is to be hoped, in less and less proportion, during the whole course of its progress. There will for ever be points, on which those will reason ill, who may yet reason with perfect accuracy in other matters.

¹ Epist. 65.

With all those sublime discoveries of modern times, which do us so much honour, and with that improved art of discovery, which is still more valuable to us than the discoveries produced by it, we must not flatter ourselves with exemption from the errors of darker ages, — of ages truly worthy of the name of dark, but to which we perhaps give the name, with more readiness, because it seems to imply that our own is an age of light. Our real comfort, in comparing ourselves with the irrefragable and subtle doctors of other times, is not that we do not sometimes reason as indefatigably ill as they, and without knowing what we are truly reasoning about, but that we do this much less frequently, and are continually lessening the number of cases, in which we reason as ill, and increasing, in proportion, the number of cases in which we reason better, and do truly know what objects we are seeking.

Of all the cases, however, in which it is of importance that the mind should have precise notions of its objects of inquiry, the most important are those which relate to the subject at present considered by us ; because the nature of power, in the relation which it is impossible for us not to feel of events, as reciprocally effects and causes, must enter, in a great measure, into every inquiry which we are capable of making, as to the successive phenomena, either of matter or of mind. It is of so much importance, therefore, to our future inquiries, that you should know what this universal and paramount relation is, that I have dwelt on it at a length which, I fear, must have already exhausted your patience ; since it is a discussion, I must confess, which requires considerable effort of attention ; and which has nothing, I must also confess, to recommend it, but its dry utility. I trust, however,

that you are too well acquainted with the nature of science not to know, that it is its utility which is its primary recommendation, and that you are too desirous of advancing in it not to disregard the occasional ruggedness of a road, which is far from being always rugged. It may be allowed to him, who walks only for the pleasure of the moment, to turn away from every path in which he has not flowers and verdure beneath his feet, and beauty wherever he looks around. But what should we have thought of the competitor of the Olympic course, whose object was the glory of a prize, contested by the proudest of his contemporary heroes, if, with that illustrious reward before him, with strength and agility that might ensure him the possession of it, and with all the assembled multitudes of Greece to witness his triumph, he had turned away from the contest and the victory, because he was not to tread on softness, and to be refreshed with fragrance, as he moved along! In that knowledge which awaits your studies, in the various sciences to which your attention may be turned, you have a much nobler prize before you; and, therefore, I shall not hesitate to call forth occasionally all the vigour of your attention, at the risk of a little temporary fatigue, as often as it shall appear to me, that, by exciting you to more than ordinary intellectual activity, I can facilitate your acquisition of a reward, which the listless exertions of the indolent never can obtain, and which is as truly the prize of strenuous effort, as the palms of the circus or the course.

LECTURE VII.

On Power, Cause, and Effect.

My last Lecture, Gentlemen, was chiefly employed in examining what it is which is the real object of inquiry, when we consider the phenomena of nature as successive; and we found that, by an original principle of our constitution, we are led, from the mere observation of change, to believe that, when similar circumstances recur, the changes which we observed will also recur in the same order; that there is hence conceived by us to be a permanent relation of one event, as invariably antecedent, to another event, as invariably consequent; and that this permanent relation is all which constitutes power. It is a word, indeed, of much seeming mystery; but all which is supposed to be mysterious and perplexing in it vanishes, when it is regarded in its true light, as only a short general term, expressive of invariable antecedence, or, in other words, of that which cannot exist in certain circumstances, without being immediately followed by a certain definite event, which we denominate an effect, in reference to the antecedent, which we denominate a cause. To express, shortly, what appears to me to be the only intelligible meaning of the three most important words in physics, immediate invariable antecedence is power; the immediate invariable antecedent, in any sequence, is a cause; the immediate invariable consequent is the correlative effect.

The object of philosophic inquiry, then, in that second department of it, which we considered, with

respect to the phenomena of nature as successive, we have found not to be any thing different from the phenomena themselves, but to be those very phenomena, as preceding or following, in certain regular series. Power is not any thing that can exist separately from a substance, but is merely the substance itself, considered in relation to another substance; in the same manner, as what we denominate form, is not any thing separate from the elementary atoms of a mass, but is merely the relation of a number of atoms, as coexisting in apparent contact. The sculptor, at every stroke of his chisel, alters the form of the block of marble on which he works, not by communicating to it any new qualities, but merely by separating from it a number of the corpuscles which were formerly included by us in our conception of the continuous whole; and when he has given the last delicate touches that finish the Jupiter, or the Venus, or Apollo, the divine form which we admire, as if it had assumed a new existence beneath the artist's hand, is still in itself unaltered: the same quiescent mass, that slumbered for ages in the quarry of which it was a part.

Quale fuscæ marmor in Africæ
 Solo recisum, sumere idoneum
 Quoscunque vultus, seu Diana
 Seu Cytheræa magis placebit :
 Informis, ater, sub pedibus jacet,
 Donec politus Phidiacâ manû
 Formosa tandem destinatæ
 Induitur lapis ora divæ.
 Jam, jamque ponit duritiem placens,
 Et nunc ocelli, et gratia mollium
 Spirat genarum, nunc labella et
 Per niveum coma sparsa collum.

The form of bodies is the relation of their elements

to each other in space,—the power of bodies is their relation to each other in time; and both form and power, if considered separately from the number of elementary corpuscles, and from the changes that arise successively, are equally abstractions of the mind, and nothing more. In a former lecture, I alluded to the influence of errors with respect to the nature of abstraction, as one of the principal causes that retard the progress of philosophy. We give a name to some common quality of many substances; and we then suppose that there is in it something real because we have given it a name, and strive to discover what that is in itself, which in itself has no existence. The example which I used at that time was the very striking one of the genera and species, and the whole classes of ascending and descending universals of the schools. I might have found an example, as striking, in those abstractions of form and power which we are now considering, — abstractions, that have exercised an influence on philosophy, as injurious as the whole series of universals in Porphyry's memorable tree, and one of which, at least, still continues to exercise the same injurious influence, when the tree of Porphyry has been long disregarded and almost forgotten.

In the philosophy of Aristotle, form, which all now readily allow to be a mere abstraction of the mind, when considered separately from the figured substance, was regarded as something equally real with matter itself; and, indeed, matter, which was supposed to derive from form all its qualities, was rather the less important of the two. Of substantial forms, however, long so omnipotent, we now hear only in those works which record the errors of other ages, as a part of the history of the fallible being, man, or in those lighter

works of playful ridicule, which convert our very follies into a source of amusement, and find abundant materials, therefore, in what was once the wisdom of the past. Crambé, the young companion of Martinus Scriblerus, we are told, "regretted extremely that substantial forms, a race of harmless beings, which had lasted for many years, and afforded a comfortable subsistence to many poor philosophers, should be now hunted down like so many wolves, without the possibility of a retreat. He considered that it had gone much harder with them, than with essences, which had retired from the schools, into the apothecaries' shops, where some of them had been advanced into the degree of quintessences. He thought there should be a retreat for poor substantial forms, amongst the gentlemen ushers at court; and that there were indeed substantial forms, such as forms of prayer and forms of government, without which the things themselves could never long subsist." ¹

The subject of this pleasantry is, indeed, it must be owned, so absurd in itself, as scarcely to require the aid of wit to render it ridiculous; and yet this more than poetic personification of the mere figure of a body, as itself a separate entity, which appears to us too absurd almost to be feigned as an object of philosophic belief, even to such a mind as that of Crambé, was what, for age after age, seemed to the most intelligent philosophers a complete explanation of all the wonders of the universe; and substantial forms, far from needing a retreat among gentlemen ushers at court, had their place of highest honours amid doctors and disputants, in every school and college, where, though they certainly could not give

science, they at least served the temporary purpose of rendering the want of it unfelt, and of giving all the dignity which science itself could have bestowed.

The vague and obscure notions at present attached to the words power, cause, effect, appear to me very analogous to the notions of the Peripatetics, and, indeed, of the greater number of the ancient philosophers, with respect to form ; and, I trust, that as we have now universally learned to consider form as nothing in itself, but only as the relation of bodies coexisting immediately in space, so power will at length be as universally considered as only the relation which substances bear to each other, in time, according as their phenomena are immediately successive ; the invariable antecedent being the cause, the invariable consequent the effect ; and the antecedent and consequent being all that are present in any phenomenon. There are, in nature, only substances ; and all the substances in nature, are every thing that truly exists in nature. There is, therefore, no additional power, separate or different from the antecedent itself, more than there is form, separate or different from the figured mass, or any other quality without a substance. In the beautiful experiment of the prismatic decomposition of light, for example, the refracting power of the prism is not any thing separate or separable from it, more than its weight or transparency. There are not a prism and transparency, but there is a prism giving passage to light. In like manner, there are not a prism and refracting power, and coloured rays, but there are a prism and rays of various colours which we have perceived to be deflected variously from their original line of direction, when they approach and quit the

lens, and which we believe will, in the same circumstances, continually exhibit the same tendency.

It is the mere regularity of the successions of events, not any additional and more mysterious circumstance, which power may be supposed to denote, that gives the whole value to our physical knowledge. It is of importance for us to know what antecedents truly precede what consequents; since we can thus provide for that future, which we are hence enabled to foresee, and can, in a great measure, modify, and almost create, the future to ourselves, by arranging the objects over which we have command, in such a manner as to form with them the antecedents, which we know to be invariably followed by the consequents desired by us. It is thus we are able to exercise that command over nature, which He, who is its only real Sovereign, has deigned, in the magnificence of His bounty, to confer on us, together with the still greater privilege of knowing that Omnipotence to which all our delegated empire is so humbly subordinate. It is a command which can be exercised by us, only as beings who, according to one of the definitions that have been given of man, look both before and behind; or, in the words of Cicero, who join and connect the future with the present, seeing things, not in their progress merely, but in the circumstances that precede them, and the circumstances that follow them; and being thus enabled to provide and arrange whatever is necessary for that life of which the whole course lies open before us. "*Homo autem (quod rationis est particeps, per quam consequentia cernit, causas rerum videt, earumque progressus et quasi antecessiones non ignorat, similitudines comparat, et rebus præsentibus adjungit atque annectit futuras) facile*

*totiùs vitæ cursum videt, ad eamque degendam præparat res necessarias."*¹

That power is nothing more than the relation of one object or event as antecedent to another object or event, its immediate and invariable consequent, may, perhaps, from the influence of former habits of thought, or rather, of former abuse of language, at first appear to you an unwarrantable simplification; for, though you may never have clearly conceived, in power, any thing more than the immediate sequence of a certain change or event, as its uniform attendant, the mere habit of attaching to it many phrases of mystery may, very naturally, lead you to conceive, that, in itself, independently of these phrases, there must be something peculiarly mysterious. But the longer you attend to the notion, the more clearly will you perceive, that all which you have ever understood in it, is the immediate sequence of some change with the certainty of the future recurrence of this effect, as often as the antecedent itself may recur in similar circumstances. To take an example, which I have already repeatedly employed, when a spark falls upon gunpowder, and kindles it into explosion, every one ascribes to the spark the power of kindling the inflammable mass. But let any one ask himself, what it is which he means by the term, and, without contenting himself with a few phrases that signify nothing, reflect, before he give his answer, and he will find, that he means nothing more than that, in all similar circumstances, the explosion of gunpowder will be the immediate and uniform consequence of the application of a spark. To take an example more immediately connected with our own science, we all

¹ Cicero de Officiis, lib. i. c. 4.

know, that as soon as any one, in the usual circumstances of health and freedom, wills to move his arm, the motion of his arm follows; and we all believe, that, in the same circumstance of health, and in the same freedom from external restraint, the same will to move the arm will be constantly followed by the same motion. If we knew and believed nothing more, than that this motion of the arm would uniformly follow the will to move it, would our knowledge of this particular phenomenon be less perfect than at present, and should we learn any thing new by being told, that the will would not merely be invariably followed by the motion of the arm, but that the will would also have the power of moving the arm; or would not the power of moving the arm be precisely the same thing, as the invariable sequence of the motion of the arm, when the will was immediately antecedent?

This test of identity, as I have said in my Essay on the subject, appears to me to be a most accurate one. When a proposition is true, and yet communicates no additional information, it must be of exactly the same import as some other proposition formerly understood and admitted. Let us suppose ourselves, then, to know all the antecedents and consequents in nature, and to believe, not merely that they have once or repeatedly existed in succession, but that they have uniformly done so, and will continue for ever to recur in similar series, so that, but for the intervention of the Divine will, which would be itself, in that case, a new antecedent, it will be absolutely impossible for any one of the antecedents to exist again, in similar circumstances, without being instantly followed by its original consequent. If an effect be something more than what invariably follows a particular antecedent,

we might, on the present supposition, know every invariable consequent of every antecedent, so as to be able to predict, in their minutest circumstances, what events would for ever follow every other event, and yet have no conception of power or causation. We might know, that the flame of a candle, if we held our hand over it, would be instantly followed by pain and burning of the hand,—that, if we ate or drank a certain quantity, our hunger and thirst would cease;—we might even build houses for shelter, sow and plant for sustenance, form legislative enactments for the prevention or punishment of vice, and bestow rewards for the encouragement of virtue; in short, we might do, as individuals and citizens, whatever we do at this moment, and with exactly the same views, and yet, (on the supposition that power is something different from that invariable antecedence which alone we are supposed to know,) we might, with all this unerring knowledge of the future, and undoubting confidence in the results which it was to present, have no knowledge of a single power in nature, or of a single cause or effect. To him who had previously kindled a fire, and placed on it a vessel full of water, with the certainty that the water, in that situation, would speedily become hot, what additional information would be given, by telling him that the fire had the power of boiling water, that it was the cause of the boiling, and the boiling its effect? And, if no additional information would in this case be given, then, according to the test of the identity of propositions, before stated, to know events as invariably antecedent and consequent, is to know them as causes and effects; and to know all the powers of every substance, therefore, would be only to know what changes or events would, in all possible circum-

stances, ensue, when preceded by certain other changes or events. It is only by confounding casual with uniform and invariable antecedence, that power can be conceived to be something different from antecedence. It certainly is something very different from the priority of a single moment; but it is impossible to form any conception of it whatever, except merely as that which is constantly followed by a certain effect.

Such is the simple, and, as it appears to me, the only intelligible view of power, as discoverable in the successive phenomena of nature. And yet, how different from this simple view is the common, or, I may almost say, the universal notion of the agencies which are supposed to be concerned in the phenomena that are the objects of philosophic inquiry. It is the detection of the powers of nature, to which such inquiry is supposed to lead, but not of powers, in the sense in which alone that phrase is intelligible, as signifying the objects themselves which uniformly precede certain changes. The powers which our investigation is to detect, or which, at least, in all the phenomena that come under our observation, we are to consider as the sole efficient, though invisible producers of them, are conceived by us to be something far more mysterious,—something that is no part of the antecedent, and yet is a part of it,—or that intervenes between each antecedent and consequent, without being itself any thing intermediate; as if it were possible that any thing could intervene in a series, without instantly becoming itself a part of the series,—a new link in the lengthened chain,—the consequent of the former antecedent, and the antecedent of the former consequent.

To me, indeed, it appears so very obvious a truth,

that the substances which exist in nature,—the world, its living inhabitants, and the adorable Being who created them, are all the real existences in nature, and that, in the various changes which occur, therefore, there can as little be any powers or susceptibilities different from the antecedents and consequents themselves, as there can be forms different from the coexisting particles which constitute them,—that to labour thus to impress this truth upon your minds, seems to me almost like an attempt to demonstrate a self-evident proposition. An illusion, however, so universal, as that which supposes the powers of nature to be something more than the mere series of antecedents themselves, is not rashly, or without very full inquiry, to be considered as an illusion; and, at any rate, in the case of a mistake, so prevalent and so important in its consequences, it cannot be uninteresting, to inquire into the circumstances that appear most probably to have led to it. Indeed the more false, and the more obviously false the illusion is, the more must it deserve our inquiry, what those circumstances have been which have so long obtained for it the assent, not of common understandings merely, but of the quick-sighted and the subtile. For a full view of my opinions on this subject, I must refer you to the work which I have published on the Relation of Cause and Effect; and the short abstract of them which I now offer, as it would be superfluous for those who have read and understood that work, is chiefly for the sake of those who may not have had an opportunity of perusing the volume itself.

One source of the general fallacy unquestionably is that influence of abstraction, to which I before alluded as aided, and in a great measure perpetuated, by the

use of language, and the common unavoidable modes of grammatical construction. We speak of the powers of a substance, of substances that have certain powers—of the figure of a body, or of bodies that have a certain figure, in the same manner as we speak of the students of a university, or of a house that has a great number of lodgers; and we thus learn to consider the power, which a substance possesses, as something different from the substance itself, inherent in it, indeed, but inherent as something that may yet subsist separately. In the ancient philosophy, this error extended to the notions both of form and power. In the case of form, however, we have seen, that the illusion, though it lasted for many ages, did at length cease, and that no one now regards the figure of a body, as any thing but the body itself. It is probable that the illusion, with respect to power, as something different from the substance that is said to possess it, would, in like manner, have ceased, and given place to juster views, if it had not been for the cause which I am next to consider.

This cause is the imperfection of our senses, the same cause which, in the other department of physics before examined by us, the department that relates to matter considered merely as existing in space, we found to give occasion to all our inquiries into the compositions of bodies. In this department of physics, however, which relates to the successions of phenomena in time, the imperfection of our senses operates in a different way. It is not that which gives occasion to the necessity of inquiry; for we have seen, that senses, of the utmost accuracy and delicacy, could not, of themselves, and without experience, have enabled us to predict any one event, in the innumerable series of phenomena that are constantly taking place around

us. But, though senses of the nicest discrimination could not have rendered inquiry into the successions of events superfluous, they would have saved us from much idle inquiry, and have given far greater precision, if not to our rules, at least to our uniform practice of philosophizing.

As our senses are at present constituted, they are too imperfect to enable us to distinguish all the elements that coexist in bodies; and of elements, which are themselves unknown to us, the minute changes which take place in them, must of course be unknown. We are hence, from our incapacity of discovering these elements by our imperfect senses and imperfect analysis, incapable of distinguishing the whole series of internal changes that occur in them, the whole progressive series of antecedents and consequents, in a phenomenon that appears to our senses simple; and since it is only between immediate antecedents and consequents that we suppose any permanent and invariable relation, we are therefore constantly on the watch, to detect, in the more obvious changes, that appear to us in nature, some of those minuter elementary changes, which we suspect to intervene. These minute invisible changes, when actually intervening, are truly what connect the obvious antecedents with the obvious consequents; and the innumerable discoveries which we are constantly making of these, lead us habitually to suppose, that, amid all the visible changes perceived by us, there is something latent which links them together. He who for the first time listens to the delightful sounds of a violin, if he be ignorant of the theory of sound, will very naturally suppose that the touch of the strings by the bow is the cause of the melody which he hears. He learns, however, that this primary impulse would be of little

effect, were it not for the vibrations excited by it in the violin itself; and another discovery, still more important, shows him that the vibration of the instrument would be of no effect, if it were not for the elastic medium interposed between his ear and it. It is no longer to the violin, therefore, that he looks, as the direct cause of the sensation of sound, but to the vibrating air; nor will even this be long considered by him as the cause, if he turn his attention to the structure of the organ of hearing. He will then trace effect after effect, through a long series of complex and very wonderful parts, till he arrive at the auditory nerve, and the whole mass of the brain, in some unknown state of which he is at length forced to rest, as the cause or immediate antecedent of that affection of the mind which constitutes the particular sensation. To inquire into the latent causes of events, is thus to endeavour to observe changes which we suppose to be actually taking place before us unobserved, very nearly in the same manner as to inquire into the composition of a substance is to strive to discover the bodies that are constantly before us, without our being able to distinguish them.

It is quite impossible that this constant search, and frequent detection of causes, before unknown, thus found to intervene between all the phenomena observed by us should not, by the influence of the common principles of our mental constitution, at length associate, almost indissolubly, with the very notion of change, as perceived by us, the notion of something intermediate, that as yet lies hid from our search, and connects the parts of the series which we at present perceive. This latent something, supposed to intervene between the observed antecedent and the observed consequent, being the more immediate antecedent of

the change which we observe, is of course regarded by us as the true cause of the change, while the antecedent actually observed by us, and known, ceases, for the same reason, to be regarded as the cause, and a cause is hence supposed by us to be something very mysterious; since we give the name, in our imagination, to something of the nature of which we must be absolutely ignorant, as we are, by supposition, ignorant of its very existence. The parts of a series of changes, which we truly observe, are regarded by us as little more than signs of other intervening changes as yet undetected: and our thought is thus constantly turned from the known to the unknown, as often as we think of discovering a cause.

The expectation of discovering something intermediate and unknown between all known events, it thus appears, is very readily convertible into the common notion of power, as a secret and invisible tie. Why does it do this? or, How does it produce this effect? is the question which we are constantly disposed to put, when we are told of any change which one substance occasions in another; and the common answer, in all such cases, is nothing more than the statement of some intervening object, or event, supposed to be unknown to the asker, but as truly a mere antecedent in the sequence, as the more obvious antecedent which he is supposed to know. How is it that we see objects at a distance—a tower, for example, on the summit of a hill, or the opposite side of a river? Because rays of light are reflected from the tower to the eye. The new antecedent appears to us a very intelligible reason. And why do rays of light, that fall in confusion from every body, within our sphere of vision, on every point of the surface of the eye,—from the wood, the rock, the bridge, the

river, as well as the tower,—give distinct impressions of all these different objects? Because the eye is formed of such refracting power, that the rays of light, which fall confusedly on its surface, converge within it, and form distinct images of the objects from which they come, on that part of the eye which is an expansion of the nerve of sight. Again we are told only of intervening events before unknown to us; and again we consider the mere knowledge of these new antecedents as a very intelligible explanation of the event which we knew before. This constant statement of something intermediate, that is supposed to be unknown to us as the cause of the phenomena which we perceive, whenever we ask, how or why they take place? continually strengthens the illusion, which leads us to regard the powers of objects as something different from the perceived objects themselves; and yet it is evident, that to state intervening changes is only to state other antecedents,—not any thing different from mere antecedence; and that, whatever number of these intervening changes we may discover between the antecedent and consequent, which we at present know, we must at length come to some ultimate change, which is truly and immediately antecedent to the known effect. We may say that an orator, when he declaims, excites the sensation of sound, because the motion of his vocal organs excites vibrations in the intervening air; that these vibrations of air are the cause of the sound, by communicating vibration to parts of the ear, and that the vibrations of these parts of the ear are the cause of the sound, by affecting in a particular manner the nerve of hearing, and the brain in general;—but, when we come to the ultimate affection of the sensorial organ, which immediately precedes the sensation of

the mind, it is evident that we cannot say of it, that it is the cause of the sound, by exciting any thing intermediate, since it then could not itself be that by which the sound was immediately preceded. It is the cause, however; exactly in the same manner as all the other parts of the sequence were causes, merely by being the immediate and invariable antecedent of the particular effect. If, in our inability of assigning any thing intermediate, we were to say, that this last affection of the sensorial organ occasioned the sound, because it had the power of occasioning sound, we should say nothing more than if we said at once, that it occasioned the sound, or, in other words, was that which could not exist in the same circumstances without the sound as its instant attendant.

"What is there," says Malebranche, "which Aristotle cannot at once propose and resolve, by his fine words of genus, species, act, power, nature, form, faculties, qualities, *causa per se*, *causa per accidens*? His followers find it very difficult to comprehend that these words signify nothing; and that we are not more learned than we were before, when we have heard them tell us, in their best manner, that fire melts metals, because it has a solvent faculty; and that some unfortunate epicure, or glutton, digests ill, because he has a weak digestion, or because the *vis concoctrix* does not perform well its functions."¹

We see only parts of the great sequences that are taking place in nature; and it is on this account we seek for the causes of what we know in the parts of the sequences that are unknown. If our senses had originally enabled us to discriminate every element of bodies, and, consequently, all the minute changes

¹ Recherche de la Vérité, liv. iv. c. ii.—vol. ii. p. 322.

which take place in these, as clearly as the more obvious changes at present perceived by us; in short, if, between two known events, we had never discovered any thing intermediate and unknown, forming a new antecedent of the consequent observed before, our notion of a cause would have been very different from that mysterious unintelligible something which we now conceive it to be; and we should then, perhaps, have found as little difficulty in admitting it to be what it simply and truly is, — only another name for the immediate invariable antecedent of any event, — as we now find in admitting the form of a body, to be only another name for the relative position of the parts that constitute it.

But, I have said in my Essay, though the powers of created things be nothing more than their relation to certain events that invariably attend them, is this definition consistent with the notion which we form of the power of the Creator? or, Is not his efficiency altogether different in nature, as well as in degree? The omnipotence of God, it must, indeed, be allowed, bears to every created power the same relation of awful superiority, which his infinite wisdom and goodness bear to the humble knowledge and virtue of his creatures. But as we know his wisdom and goodness, only by knowing what that human wisdom and goodness are, which, with all their imperfection, he has yet permitted to know and adore him, — so, it is only by knowing created power, weak and limited as it is, that we can rise to the contemplation of his omnipotence. In contemplating it, we consider only his will, as the direct antecedent of those glorious effects which the universe displays. The power of God is not any thing different from God; but is the Almighty himself, willing whatever seems to him

good, and creating or altering all things by his very will to create or alter. It is enough for our devotion, to trace every where the characters of the Divinity,—of provident arrangement prior to this system of things; and to know, therefore, that, without that divine will as antecedent, nothing could have been. Wherever we turn our eyes; to the earth—to the heavens—to the myriads of beings that live and move around us—or to those more than myriads of worlds, which seem themselves almost like animated inhabitants of the infinity through which they range; above us, beneath us, on every side we discover, with a certainty that admits not of doubt, intelligence and design, that must have preceded the existence of every thing which exists. Yet, when we analyze those great but obscure ideas, which rise in our mind while we attempt to think of the creation of things, we feel, that it is still only a sequence of events which we are considering, though of events the magnitude of which allows us no comparison, because it has nothing in common with those earthly changes which fall beneath our view. We do not see any third circumstance existing intermediately, and binding, as it were, the will of the Omnipotent Creator to the things which are to be; we conceive only the divine will itself, as if made visible to our imagination, and all nature at the very moment rising around. It is evident, that, in the case of the divine agency, as well as in every other instance of causation, the introduction of any circumstance, as a bond of closer connexion, would only furnish a new phenomenon to be itself connected; but even though it were possible to conceive the closer connexion of such a third circumstance, as is supposed to constitute the inexplicable efficiency between the will of the Creator and the rise of the

universe, it would diminish, indeed, but it certainly cannot be supposed to elevate, the majesty of the person and of the scene. Our feeling of his omnipotence is not rendered stronger by the slowness of the complicated process: it is, on the contrary, the immediate succession of the object to the desire, which impresses the force of the omnipotence on our mind; and it is to the divine agency, therefore, that the representation of instant sequence seems peculiarly suited, as if it were more emphatically powerful. Such is the great charm of the celebrated passage of Genesis, descriptive of the creation of light. It is from stating nothing more than the antecedent and consequent, that the majestic simplicity of the description is derived. God speaks and it is done. We imagine nothing intermediate. In our highest contemplation of His power, we believe only, that, when He willed creation, a world arose; and that, in all future time, His will to create cannot exist, without being followed by the instant rise into being of whatever He may have willed; that His will to destroy any thing, will be, in like manner, followed by its non-existence; and His will to vary the course of things, by miraculous appearances. The will is the only necessary previous change; and that Being has almighty power, whose every will is immediately and invariably followed by the existence of its object.

LECTURE VIII.

On Hypothesis and Theory.

THE observations which I have already made on power, Gentlemen, have, I hope, shown you, both

what it truly is, and the sources of that illusion which leads us to regard it as something more mysterious.

The principal source of this illusion, we found to be our incapacity of distinguishing the minute elements of bodies,—that leads us, in a manner which it is unnecessary now to recapitulate, to suspect constantly some intermediate and unobserved objects and events, between the parts of sequences, which we truly observe, and, by the influence of this habit, to transfer, at last, the notion of power, from the antecedent which we observe, to the supposed more direct antecedent, which we only imagine, and to consider the causes of events as some unknown circumstances, that exist between all the antecedents which we know, and the consequents which we know, and connect these together in mysterious union.

The same imperfection of our senses, which, from our incapacity of discovering all the minute elements, and consequently all the minute elementary changes, in bodies, leads us to form erroneous notions of power and causation, has tended, in like manner, to produce a fondness for hypotheses, which, without rendering the observed phenomena in any respect more intelligible, only render them more complicated, and increase the very difficulty which they are supposed to diminish.

Of this tendency of the mind, which is a very injurious one to the progress of sound philosophy, I must request your attention to a little fuller elucidation. To know well what hypotheses truly are in themselves, and what it is which they contribute to the explanation of phenomena, is, I am convinced, the surest of all preservatives against that too ready assent which you might otherwise be disposed to give to them; and to guard you from the ready adoption of

such loose conclusions in the reasonings of others, and from the tendency to similar rashness of arrangement and inference in your own speculative inquiries, is to perform for you the most important office that can be performed, for the regulation, both of your present studies, and of those maturer investigations, to which, I trust, your present studies are to lead.

I have already endeavoured to point out to you, in what manner we are led to believe, that we explain the sequence of two events by stating some intermediate event. If asked, How it is that we hear a voice at a distance, or see a distant object? we immediately answer, Because the primary vibration of the organs of speech is propagated in successive vibrations through the intervening air, and because light is reflected or emitted from the distant object to the eye; and he who hears this answer, which is obviously nothing more than the statement of another effect, or series of effects, that takes place before that particular effect concerning which the question is put, is perfectly satisfied, for the time, with the acquisition which he has made, and thinks that he now knows how it is that we hear and see. To know why a succession of events takes place, is thus at length conceived by us to be the same thing as to know some other changes, or series of changes, which take place between them; and, with this opinion, as to the necessary presence of some intervening and connecting link, it is very natural, that, when we can no longer state or imagine any thing which intervenes, we should feel as if the sequence itself were less intelligible; though unquestionably, when we can state some intervening circumstance, we have merely found a new antecedent in the train of physical events, so as to have now two antecedents and consequents, instead of one simple

antecedent and consequent, and have thus only doubled our supposed mystery instead of removing it.

Since it does appear to us, however, to remove the very mystery which it doubles, it is the same thing, with respect to our general practice of philosophizing, as if it did remove it. If we suppose the intervention of some unknown cause, in every phenomenon which we perceive, we must be equally desirous of discovering that unknown cause, which we suppose to be intermediate; and, when this is not easily discoverable, we must feel a strong tendency to divine what it is, and to acquiesce, more readily than we should otherwise have done, in the certainty of what we have only imagined; always, of course, imagining the cause, which seems to have most analogy to the observed effect.

Such is the nature of that illusion, from which the love of hypothesis flows, — as seeming, by the intervention of a new antecedent, to render more intelligible the sequences of events that are obviously before us, — though all which is truly done is to double the number of antecedents; and, therefore, to double instead of removing the difficulty that is supposed to be involved in the consideration of a simple sequence of events. A stone tends to the ground: that it should have this tendency, in consequence of the mere presence of the earth, appears to us most wonderful; and we think, that it would be much less wonderful if we could discover the presence, though it were the mere presence, of something else. We therefore, in our mind, run over every circumstance analogous, to discover something which we may consider as present, that may represent to our imagination the cause which we seek. The effect of impulse, in producing motion, we know by constant experience; and, as the motion which it

produces, in a particular direction, seems analogous to the motion of the stone in its particular direction, we conceive that the motion of a stone, in its fall to the earth, is rendered more intelligible by the imagined intervention of some impelling body. The circumstances which we observe, however, are manifestly inconsistent with the supposition of the impulse of any very gross matter. The analogies of gross matter are accordingly excluded from our thoughts, and we suppose the impulse to proceed from some very subtile fluid, to which we give the name of ether, or any other name which we may choose to invent for it. The hypothesis is founded, you will observe, on the mere analogy of another species of motion, and which would account for gravitation by the impulse of some fine fluid. It is evident that there may be, in this way, as many hypotheses to explain a single fact, as there have been circumstances analogous observed in all the various phenomena of nature. Accordingly, another set of philosophers, instead of explaining gravitation by the analogy of impulse, have had recourse to another analogy still more intimately familiar to us—that of the phenomena of life. We are able to move our limbs by our mere volition. The mind, therefore, it is evident, can produce motion in matter; and it is hence some interposed spiritual agent which produces all the phenomena of gravitation. Every orb, in its revolution on its axis, or in its great journey through the heavens, has, according to this system of philosophical mythology, some peculiar genius, or directing spirit, that regulates its course, in the same manner as, of old, the universe itself was considered as one enormous animal, performing its various movements by its own vital energies. It is the influence of this analogy of our own muscular motions, as obe-

dient to our volition, together with the mistaken belief of adding greater honour to the divine Omnipotent, which has led a very large class of philosophers to ascribe every change in the universe, material or intellectual, not to the original foresight and arrangement merely,—the irresistible evidence of which even the impiety that professes to question it must secretly admit, — but to the direct operation of the Creator and Sovereign of the world :

The mighty Hand,
That, ever busy, wheels the silent spheres,
Works in the secret deep ; shoots streaming thence
The fair profusion that o'erspreads the spring ;
Flings from the sun direct the flaming day ;
Feeds every creature ; hurls the tempest forth ;
And, as on earth this grateful change revolves,
With transport touches all the springs of life.¹

So prone is the mind to complicate every phenomenon by the insertion of imagined causes, in the simple sequences of physical events, that one hypothesis may often be said to involve in it many other hypotheses, invented for the explanation of that very phenomenon, which is adduced in explanation of another phenomenon, as simple as itself. The production of muscular motion by the will, which is the source of the hypothesis of direct spiritual agency, in every production of motion or change in the universe, has itself given occasion to innumerable speculations of this kind. Indeed, on no subject has the imagination been more fruitful of fancies, that have been strangely given to the world under the name of philosophy. Though you cannot be supposed to be acquainted with the minute nomenclature of anatomy,

¹ Thomson's Hymn to the Seasons, 29-35.

you yet all know that there are parts termed muscles, and other parts termed nerves, and that it is by the contraction of our muscles that our limbs are moved. The nerves, distributed to the different muscles, are evidently instrumental to their contraction; since the destruction of the nerve puts an end to the voluntary contraction of the muscle, and consequently to the apparent motion of the limb. But what is the influence that is propagated along the nerve, and in what manner is it propagated? For explaining this most familiar of all phenomena, there is scarcely any class of phenomena in nature, to the analogy of which recourse has not been had, — the vibration of musical chords, — the coiling or uncoiling of springs, — the motion of elastic fluids, — electricity, magnetism, galvanism; — and the result of so many hypotheses, — after all the labour of striving to adapt them to the phenomena, and the still greater labour of striving to prove them exactly adapted, when they were far from being so — has been the return to the simple fact, that muscular motion follows a certain state of the nerve; in the same manner, as the result of all the similar labour that has been employed to account, as it has been termed, for gravitation, has been a return to the simple fact, that, at all visible distances observed, the bodies in nature tend toward each other.

The mere sequence of one event after another event, is, however, too easily conceived, and has too little in it of that complication, which at once busies and delights us, to allow the mind to rest in it long. It must for ever have something to disentangle, and, therefore, something which is perplexed; for such is the strange nature of man, that the simplicity of truth, which might seem to be its essential charm, and

which renders it doubly valuable, in relation to the weakness of his faculties, is the very circumstance that renders it least attractive to him ; and though, in his analysis of every thing that is compound in matter, or involved in thought, he constantly flatters himself, that it is this very simplicity, which he loves and seeks, he yet, when he arrives at absolute simplicity, feels an equal tendency to turn away from it, and gladly prefers to it any thing that is more mysterious, merely because it is mysterious. "I am persuaded," said one, who knew our nature well, "that, if the majority of mankind could be made to see the order of the universe, such as it is, as they would not remark in it any virtues attached to certain numbers, nor any properties inherent in certain planets, nor fatalities in certain times and revolutions of these, they would not be able to restrain themselves, on the sight of this admirable regularity and beauty, from crying out with astonishment, What ! is this all ?"

For the fidelity of this picture, in which Fontenelle has so justly represented one of the common weaknesses of our intellectual nature, we unfortunately need not refer to the majority of mankind alone, to whom, it may be said, almost with equal truth, that every thing is wonderful, and that nothing is wonderful. The feeling which it describes exists even in the most philosophic mind, and had certainly no inconsiderable influence even on that mind which described it so truly, when it employed all its great powers, in still striving to support the cumbrous system of the *vortices*, against the simple theory of attraction. Even Newton himself, whose transcendent intellect was so well fitted to perceive the sublimity, which simplicity adds to every thing that is truly great in itself, yet showed, by his query with respect to the agency of ether, that he was not

absolutely exempt from that human infirmity of which I speak; and though philosophers may now be considered as almost unanimous, with respect to gravitation, in considering it as the mere tendency of bodies towards each other, we yet, in admiring this tendency which we perceive, feel some reluctance to admit a mere fact, that presents itself so simply to our conception, and would be better pleased, if any other mode could be pointed out, by which, with some decent appearance of reason on its side, the same effect could seem to be brought about, by a natural apparatus, better suited to gratify our passion for the complicated and the wonderful. Though the theory of vortices can scarcely be said now to have any lingering defender left, there is a constant tendency, and a tendency which requires all our philosophy to repress it, to relapse into the supposition of a great ethereal fluid, by the immense ocean, or immense streams, of which the phenomenon now ascribed to gravitation, may be explained, and we have no objection to fill the whole boundless void of the universe with an infinite profusion of this invisible matter, merely that we may think, with more comfort, that we know how a feather falls to the ground; though the fall of the feather, after this magnificent cost of contrivance, would still be as truly inexplicable as at present; and though many other difficulties must, in that case, be admitted in addition. It is only in geometry, that we readily allow a straight line to be the shortest that can be drawn between any two points. In the physics of mind, or of matter, we are far from allowing this. We prefer to it almost any curve that is presented to us by others, and, without all doubt, any curve which we have described ourselves; and we boldly maintain, and, which is yet more, fairly believe,

that we have found out a shorter road, merely because, in our philosophical peregrination, we have chosen to journey many miles about, and, in our delight of gazing on new objects, have never thought of measuring the ground which we have trod.

I am aware, indeed, that, in the consideration of the simple antecedents and consequents which nature exhibits, it is not the mere complication of these, by the introduction of new intervening substances or events, which obtains from the mind so ready an adoption of hypotheses. On the contrary, there is a sort of false simplification in the introduction of hypotheses, which itself aids the illusion of the mystery. I term the simplification false, because it is not in the phenomena themselves, but in our mode of conceiving them. It is certainly far more simple, in nature, that bodies should have a tendency toward each other, than that there should be oceans of a subtle fluid, circulating around them, in vortices, or streams of such a fluid, projected continually on them from some unknown source, merely to produce the same exact motions, which would be the result of the reciprocal tendency in the bodies themselves. But the interposition of all this immensity of matter, to account for the fall of a feather or a rain-drop, cumbrous as the contrivance must be allowed to be, is yet, in one respect, more simple to our conception ; because, instead of two classes of phenomena, those of gravitation and of impulse, we have, in referring all to impulse, only one general class. Man loves what is simple much, but he loves what is mysterious more ; and a mighty ocean of ether, operating invisibly in all the visible phenomena of the universe, has thus a sort of double charm, by uniting the false simplicity, of which I have spoken, with abundance of real

mystery. This mixture of the simple and the mysterious, is, in some measure, like the mixture of uniformity with diversity, that is so delightful in works of art. However pleasing objects may separately be, we are soon wearied with wandering over them, when, from their extreme irregularity, we cannot group them in any distinct assemblage, or discover some slight relation of parts to the whole; and we are still sooner, and more painfully fatigued, when every object which we see is in exact symmetry with some other object. In like manner, the mind would be perplexed and oppressed, if it were to conceive a great multitude of objects or circumstances, concurring in the production of one observed event. But it feels a sort of dissatisfaction also, when the sequences of events which it observes, are reduced to the mere antecedents and consequents of which they consist, and must have a little more complication to flatter it with the belief, that it has learned something which it is important to have learned. To know that a withered leaf falls to the ground, is to know, what the very vulgar know, as well as ourselves; but an ocean of ether whirling it downward, is something of which the vulgar have no conception, and gives a kind of mysterious magnificence to a very simple event, which makes us think, that our knowledge is greater, because we have given, in our imagination, a sort of cumbrous magnitude to the phenomenon itself.

That hypotheses, in that wide sense of the word which implies every thing conjectural, are without use in philosophy, it would be absurd to affirm, since every inquiry may, in that wide sense, be said to presuppose them, and must always presuppose them if the inquiry have any object. They are of use, how-

ever, not as superseding investigation, but as directing investigation to certain objects,—not as telling us what we are to believe, but as pointing out to us what we are to endeavour to ascertain. An hypothesis, in this view of it, is nothing more than a reason for making one experiment or observation rather than another; and it is evident, that, without some reason of this kind, as experiments and observations are almost infinite, inquiry would be altogether profitless. To make experiments at random, is not to philosophize; it becomes philosophy, only when the experiments are made with a certain view; and to make them, with any particular view, is to suppose the presence of something, the operation of which they will tend either to prove or disprove. When Torricelli, for example,—proceeding on the observation previously made, by Galileo, with respect to the limited height to which water could be made to rise in a pump,—that memorable observation, which demonstrated, at last, after so many ages of error, what ought not for a single moment to have required to be demonstrated, the absurdity of the horror of a void ascribed to nature; when, proceeding on this memorable observation, Torricelli made his equally memorable experiment with respect to the height of the column of mercury supported in an inverted tube, and found, on comparison of their specific gravities, the columns of mercury and water to be exactly equiponderant, it is evident that he was led to the experiment with the mercury by the supposition, that the rise of fluids *in vacuo* was occasioned by some counterpressure, exactly equal to the weight supported, and that the column of mercury, therefore, should be less in height than the column of water, in the exact inverse ratio of their specific gravities, by which the counterpressure was

to be sustained. To conceive the air, which was then universally regarded as essentially light, to be not light but heavy, so as to press on the fluid beneath, was, at that time, to make as bold a supposition as could be made. It was, indeed, a temporary hypothesis, even when it led to that experimental demonstration of the fact, which proved it for ever after not to be hypothetical.

An hypothesis, then, in the first stage of inquiry, far from being inconsistent with sound philosophy, may be said to be essential to it. But it is essential only in this first stage, as suggesting what is afterwards to be verified or disproved; and, when the experiments or observations to which it directs us do not verify it, it is no longer to be entertained, even as an hypothesis. If we observe a phenomenon, which we never have observed before, it is absolutely impossible for us, not to think of the analogous cases which we may have seen; since they are suggested by a principle of association, which is as truly a part of our constitution, as the senses with which we perceived the phenomenon itself; and, if any of these analogies strike us as remarkably coincident, it is equally impossible for us not to imagine, that the cause, which we knew in that former instance, may also be present in this analogous instance, and that they may, therefore, both be reduced to the same class. To stop here, and, from this mere analogy, to infer positive identity of the causes, and to follow out the possible consequences, in innumerable applications, would be to do, as many great artists in systematizing have done. What a philosopher, of sounder views, however, would do, in such a case, is very different. He would assume, indeed, as possible, or perhaps as probable, the existence of the supposed cause. But he

would assume it, only to direct his examination of its reality, by investigating, as far as he was able, from past experience, what the circumstances would have been, in every respect, if the cause supposed had been actually present; and, even if these were all found to be exactly coincident, though he would think the presence of the cause more probable, he would be very far from considering it as certain, and would still endeavour to lessen the chances of fallacy, by watching the circumstances, should they again recur, and varying them, by experiment, in every possible way.

This patience and caution, however essential as they are to just philosophizing, require, it must be confessed, no slight efforts of self-denial, but of a self-denial which is as necessary to intellectual excellence, as the various moral species of self-denial are to excellence of virtue.

“Mr. Locke, I think,” says Dr. Reid, “mentions an eminent musician, who believed that God created the world in six days, and rested the seventh, because there are but seven notes in music. I myself,” he continues, “knew one of that profession, who thought that there could be only three parts in harmony, to wit, bass, tenor, and treble; because there are but three persons in the Trinity.”¹

The minds that could be satisfied with analogies so very slight, must, indeed, have been little acquainted with the principles of philosophic inquiry; and yet how many systems have been advanced in different ages, admired by multitudes, who knew them only by name, and still more revered by the philosophers, who gloried in adopting them, that have been founded on analogies almost as slight.

¹ On the Powers of the Human Mind, *Essay* vi. chap. viii. vol. ii. p. 334. 8vo. edit.

“The philosophers who form hypothetical systems of the universe, and of all its most secret laws,” says Voltaire, in one of his lively similes, “are like our travellers that go to Constantinople, and think that they must tell us a great deal about the seraglio. They pretend to know every thing which passes within it, the whole secret history of the Sultan and his favourites; and they have seen nothing but its outside walls.”

In one respect, however, philosophers, in their hypothetical systems, far outdo the travellers to Constantinople. They not merely tell us secrets of nature, which they have no opportunity of learning, but they believe the very tales of their own fancy. To see any unusual phenomenon, is, indeed, to wonder at it, at first; but to explain it, is almost the very next step, reason serving rather to defend the explanation, when it is made, than to assist greatly in making it; and in many cases, each philosopher has his separate explanation, on which he is disposed to put as much reliance, as on the certainty of the fact itself, not abandoning the hypothesis, even though the fact should prove to have been different, but making it bend, with a happy pliability, to all the diversities discovered, so as at last, perhaps, to account for circumstances the very reverse of those which it was originally invented to explain. “I have heard,” says Condillac, “of a philosopher who had the happiness of thinking that he had discovered a principle, which was to explain all the wonderful phenomena of chemistry; and who, in the ardour of his self-congratulation, hastened to communicate his discovery to a skilful chemist. The chemist had the kindness to listen to him, and then calmly told him, that there was but one unfortunate circumstance for his discovery, which was, that the

chemical facts were exactly the reverse of what he had supposed. Well, then, said the philosopher, have the goodness to tell me what they are, that I may explain them by my system."¹ To those who know that fondness for conjecture, which may almost be said to be a sort of intellectual appetite, there is nothing in all the wonders which Swift tells us of his fabled Houynnhnms, that marks them more strongly as a different race from mankind, than the total absence of hypothesis from their systems of knowledge.

"I remember," says Gulliver, "it was with extreme difficulty that I could bring my master to understand the meaning of the word *opinion*, or how a point could be *disputable*; because reason taught us to affirm or deny *only when we are certain*; and beyond our knowledge we cannot do either. So that controversies, wranglings, disputes, and positiveness, in false or dubious propositions, are evils unknown among the Houynnhnms. In the like manner, when I used to explain to him our several systems of natural philosophy, he would laugh that a creature, pretending to reason, should value itself upon the knowledge of other people's conjectures, and in things where that knowledge, if it were certain, could be of no use. Wherein he agreed entirely with the sentiments of Socrates, as Plato delivers them, which I mention as the highest honour I can do to that prince of philosophers. I have often since reflected what destruction such a doctrine would make in the libraries of Europe, and how many paths to fame would then be shut up in the learned world."²

While I wish to caution you against a fondness for

¹ *Traité des Systèmes*, chap. xii. vol. ii. p. 372.

² *Travels*, part iv. chap. 8. *Swift's Works*, edit. Nichols, vol. ix. p. 300.

hypotheses, by showing you, not merely that they are liable to error,—for inquiry, of every kind, must be so in some degree,—but that, in truth, they leave the real difficulty of the succession of the observed consequent to the observed antecedent as great as before, and only add, to the supposed difficulty of explaining one sequence, the necessity of explaining a sequence additional,—I must remark, at the same time, that what is commonly termed theory, in opposition to hypothesis, is far from being so different from it as is commonly represented, at least in the very wide application which is usually made of it. We are told, by those who lay down rules of philosophizing, that the object of philosophy is to observe particulars, and, from these, to frame general laws, which may again be applied to the explanation of particulars; and the view which is thus given of the real province of philosophy is undoubtedly a just one; but there is an ambiguity in the language which may deceive you, and with respect to which, therefore, it is necessary for you to be on your guard. If, by the term general law, be meant the agreement in some common circumstances of a number of events observed, there can be no question that we proceed safely in framing it, and that what we have already found in a number of events, must be applicable to that number of events; in the same manner as, after combining in the term *animal* the circumstances in which a dog, a horse, a sheep, agree, we cannot err in applying the term animal to a dog, a horse, a sheep. But the only particulars to which, in this case, we can, with perfect confidence, apply a general law, are the very particulars that have been before observed by us. If it be understood as more general than the particulars observed, and, therefore, capable of being applied with perfect cer-

tainty to the explanation of new phenomena, we evidently, to the extent in which the general law is applied beyond the circumstances observed, proceed on mere supposition, as truly as in any hypothesis which we could have framed; and though the supposition may be more and more certain, in proportion to the number of cases thus generalized, and the absence of any circumstance which can be supposed, in the new case, to be inconsistent with it, it never can amount to actual certainty. Let us take, for example, one of the most striking cases of this sort. That bodies tend to each other, in all circumstances, with a force increasing directly as their quantities, and inversely as the squares of their distances, may seem in the highest degree probable indeed, from the innumerable facts observed on our own globe, and in the magnificent extent of the planetary movements; but it cannot be said to be certain at all distances, in which we have never had an opportunity of making observation, as it seems to be verified in the heights of our atmosphere and in the distances of the planets, in their orbits, from the sun, and from each other. It is not necessary, however, to refer, for possible exceptions, to spaces that are beyond our observation; since, on the surface of our own earth, there is abundant evidence that the law does not hold universally. Every quiescent mass that is capable of greater compression, and of which the particles, therefore, before that compression, are not in absolute contact, shows sufficiently, that the principle of attraction, which, of itself, would have brought them into actual contact, must have ceased to operate, while there was still a space between the particles that would have allowed its free operation; and, in the phenomena of elasticity, and impulse in general, it has not merely ceased, but

is actually reversed; the bodies which, at all visible distances, exhibited a reciprocal attraction, now exhibiting a reciprocal repulsion, in consequence of which they mutually fly off, as readily as they before approached; that is to say, the tendency of bodies to each other, being converted into a tendency from each other, by a mere change of distance, so slight as to be almost inappreciable. When a ball rebounds from the earth toward which it moved rapidly before, and the gravitating tendency is thus evidently reversed, without the intervention of any foreign force, what eye, though it be aided by all the nicest apparatus of optical art, can discover the lines which separate those infinitesimal differences of proximity, at which the particles of the ball still continue to gravitate toward the earth, and are afterwards driven from it in an opposite direction; yet the phenomenon itself is a sufficient proof, that in these spaces, which seem, to our organs of sense, so completely the same, that it is absolutely impossible for us to distinguish them, the reciprocal tendencies of the particles of the ball and of the earth are as truly opposite, as if the laws of gravitation had, at the moment at which the rebound begins, been reversed through the whole system of the universe.

It is, indeed, scarcely possible to imagine a more striking proof of the danger of extending, with too great certainty, a general law, than this instant conversion of attraction into repulsion, without the addition of any new bodies, without any change in the nature of the bodies themselves, and with a change of their circumstances so very slight, as to be absolutely indistinguishable, but for the opposite motions that result from it. After observing the gravity of bodies, at all heights of our atmosphere, and extending our survey through the wide spaces of our solar system,—

computing the tendency of the planets to the sun, and their disturbing forces, as they operate on each other, — and finding the resulting motions exactly to correspond with those which we had predicted by theory; — in these circumstances, after an examination so extensive, if we had affirmed, as a universal law of matter, that, at all distances, bodies tend toward each other, we should have considered the wideness of the induction as justifying the affirmation; and yet, even in this case, we find, on the surface of our earth, in the mutual shocks of bodies, and in their very rest, sufficient evidence, that, in making the universal affirmation, we should have reasoned falsely. There is no theory, then, which, if applied to the explanation of new phenomena, is not, to a certain degree, conjectural; because it must proceed on the supposition, that what was true in certain circumstances, is true also in circumstances that have not been observed. It admits of certainty, only when it is applied to the very substances observed — in the very circumstances observed; in which case, it may be strictly said to be nothing more than the application of a general term to the particulars, which we have before agreed to comprehend in it. Whatever is more than this is truly hypothetical; the difference being, that we commonly give the name of hypothesis to cases, in which we suppose the intervention of some substance, of the existence of which, as present in the phenomenon, we have no direct proof, or of some additional quality of a substance before unobserved; and the name of theory to cases, which do not suppose the existence of any substance that is not actually observed, or of any quality that has not been actually observed, but merely the continuance, in certain new circumstances, of tendencies observed in other circumstances. Thus,

if a planet were discovered revolving in the space which separates the orbits of any two planets at present known, were we to suppose of matter, in this new situation, that it would be subject to the same exact law of gravitation, to which the other planets were known to be subject, and to predict its place in the heavens, at any time, according to this law, we should be said to form a theory of its motions; as we should not take for granted, any new quality of a substance, or the existence of any substance, which was not evidently present, but only of tendencies observed before in other circumstances; analogous indeed, but not absolutely the same. We should be said to form an hypothesis on the subject, if, making the same prediction, as to its motions, and place in the heavens, at any given time, we were to ascribe the centripetal tendency, which confines it within its orbit, to the impulse of ether, or to any other mechanical cause. The terms, however, I must confess, though the distinction which I have now stated would be, in all cases, a very convenient one, are used very loosely, not in conversation merely, but in the writings of philosophers; an hypothesis often meaning nothing more than a theory, to which we have not given our assent,—and a theory, an hypothesis which we have adopted, or still more, one which we have formed ourselves.

A theory, then, even in that best sense, to which I wish it accurately confined, as often as it ventures a single hair-breadth beyond the line of former observation, may be wrong, as an hypothesis may be wrong. But, in a theory, in this sense of it, there are both less risk of error, and less extensive evil from error, than in an hypothesis. There is less risk of error, because we speak only of the properties of bodies, that must

be allowed actually to exist ; and the evil of error is, for the same reason, less extensive, since it must be confined to this single point ; whereas, if we were to imagine falsely the presence of some third substance, our supposition might involve as many errors, as that substance has qualities ; since we should be led to suppose, and expect, some or all of the other consequences, which usually attend it when really present.

The practical conclusion to be drawn from all this very long discussion, is, that we should use hypotheses to suggest and direct inquiry, not to terminate or supersede it ; and that, in theorizing, — as the chance of error, in the application of a general law, diminishes, in proportion to the number of analogous cases, in which it is observed to hold, — we should not form any general proposition, till after as wide an induction as it is possible for us to make ; and, in the subsequent application of it to particulars, should never content ourselves, in any new circumstances, with the mere probability, however high, which this application of it affords ; while it is possible for us to verify, or disprove it, by actual experiment.

LECTURE IX.

Recapitulation of the four preceding Lectures ; and Application of the Laws of Physical Inquiry to the Study of Mind, commenced.

FOR several Lectures, Gentlemen, we have been employed in considering the objects that are to be had in view, in physical inquiry in general, a clear conception of which seems to me as essential to the

philosophy of mind, as to the philosophy of matter. I should now proceed to apply these general remarks more particularly to our own science; but, before doing this, it may be of advantage to retrace slightly our steps in the progress already made.

All inquiry, with respect to the various substances in nature, we have seen, must regard them as they exist in space, or as they exist in time; the inquiry, in the one case, being into their composition, — the inquiry, in the other case, into the changes which they exhibit. The first of these views we found to be very simple, having, for its object, only the discovery of what is actually before us at the moment, — which, therefore, if we had been endowed with senses of greater delicacy and acuteness, we might have known, without any inquiry whatever. It is the investigation of the elements, or separate bodies, that exist together, in the substances which we considered, or rather that constitute the substances which we considered, by occupying the space which we assign to the one imaginary aggregate, and are regarded by us as one substance, — not from any absolute unity which they have in nature, since the elementary atoms, however continuous or near, have an existence as truly separate and independent as if they had been created at the distance of worlds; but from a unity, that is relative only to our incapacity of distinguishing them as separate. It is to the imperfection of our senses, then, that this first division of physical inquiry owes its origin; and its most complete results could enable us to discover only, what has been before our eyes from the moment of our birth.

The second division of inquiry, — that which relates to the successions of phenomena in time, — we found,

however, to have a different origin; since the utmost perfection of our mere senses could show us only what is, at the moment of perception, not what has been, nor what will be; and there is nothing, in any qualities of bodies perceived by us, which, without experience, could enable us to predict the changes that are to occur in them. The foundation of all inquiry, with respect to phenomena as successive, we found to be that most important law, or original tendency, of our nature, in consequence of which, we not merely perceive the changes exhibited to us at one particular moment, but, from this perception, are led irresistibly to believe, that similar changes have constantly taken place, in all similar circumstances, and will constantly take place, as often as the future circumstances shall be exactly similar to the present. We hence consider events, not as casually antecedent and consequent, but as invariably antecedent and consequent, — or, in other words, as causes and effects; and we give the name of power to this permanent relation of the invariable antecedent to its invariable consequent. The powers of substances, then, concerning which so many vague, and confused, and mysterious notions prevail, are only another name for the substances themselves in their relation to other substances, — not any thing separate from them and intermediate, — as the form of a body, concerning which too, for many ages, notions as vague and mysterious prevailed, is not any thing different from the body, but is only the body itself, considered according to the relative position of its elements. Form is the relation of immediate proximity, which bodies bear to each other in space; power is the relation of immediate and uniform proximity, which events bear to each other in time; and the relation, far from being

different, as is commonly supposed, when applied to matter and to spirit, is precisely the same in kind whether the events, of which we think, be material or mental. It is of invariable antecedence that we speak alike in both cases, and of invariable antecedence only. When we say that a magnet has the power of attracting iron, we mean only, that a magnet cannot be brought near iron, without the instant motion of the iron towards it. When we say, in treating of mental influence, that man in the ordinary circumstances of health, and when free from any foreign restraint, has the power of moving his hand, we mean only, that, in these circumstances, he cannot will to move his hand, without its consequent motion. When we speak of the omnipotence of the Supreme of Beings,—who is the fountain of all power, as he is the fountain of all existence,—we mean only, that the universe arose at his command, as its instant consequence, and that whatever he wills to exist or perish, exists, or is no more.

This simple view of power, as the mere antecedent substance itself, in its relation to its immediate and invariable consequent, without the intervention of any mysterious tie,—since there surely can be nothing in nature, but all the substances which exist in nature,—it was necessary to illustrate, at great length, in consequence of the very false notions that are generally, or, I may say, universally prevalent on the subject. The illustration, I am aware, must, to many of you, have appeared very tedious, and a sufficient exemplification of that license of exhausting occasionally your attention, and, perhaps, too, your patience, of which I claimed the right of exercise, whenever it should appear to me necessary, to make any important, but abstract, truth familiar to your mind. I shall not

regret, however, any temporary feeling of weariness which I may have occasioned, by dwelling on this great fundamental subject, if I have succeeded in making familiar to your minds, the truths which I wished to impress on them, and have freed you from those false notions of occult and unintelligible agency in causes, as something different from the mere causes or antecedents themselves, which appear to me to have retarded, in a very singular degree, the progress of philosophy, — not merely, by habituating the mind to acquiesce in the use of language, to which it truly affixes no meaning, though even this evil is one of very serious injury in its general effects,—but by misdirecting its inquiries, and leading it, from the simplicity of nature, in which every glance is truth, and every step is progress, to bewilder itself, with the verbal mysteries of the schools, where there is no refreshment of truth to the eye, that is wearied with wandering only from shadow to shadow, and where there is all the fatigue of continual progress, without the advance of a single step.

Even those philosophers, who have had the wisdom to perceive, that man can never discover any thing in the phenomena of nature, but a succession of events, that follow each other in regular series, and who, accordingly, recommend the observation and arrangement of these regular antecedents and consequents as the only attainable objects of philosophy, yet found this very advice, on the distinction of what they have termed efficient causes, as different from the physical causes, or simple antecedents, to which they advise us to devote our whole attention. There are certain secret causes, they say, continually operating in the production of every change which we observe, and causes which alone deserve the name of efficient; but

they are, at the same time, careful to tell us, that, although these causes are constantly operating before us, and are all which are truly acting before us, we must not hope that we shall ever be able to detect one of them; and, indeed, the prohibition of every attempt to discover the efficient causes of phenomena, —repeated in endless varieties of precept or reproof, —is the foundation of all their rules of philosophizing; as if the very information, that what we are to consider exclusively, in the phenomena of nature, is far less important, than what we are studiously to omit, were not, of itself, more powerful, in stimulating our curiosity to attempt the forbidden search, than any prohibition could be in repressing it. “*Felix qui potuit rerum cognoscere causas.*” This will for ever be the feeling of the inquirer, while he thinks that there are any causes more than those which he has already investigated. Even Newton himself, that sagest of observers and reasoners, who could say, with the simplicity of pure philosophy, “*Hypotheses non fingo,*” yet showed, as we have seen, by one of the most hypothetical of his Queries, that he was not exempt from the error which he wished to discourage — that inordinate love of the unknown, which must always lead those, who believe that there is something intermediate and undiscovered truly existing between events, to feel the anxious dissatisfaction of incomplete inquiry, in considering the mere antecedents and consequents which nature exhibits, and to turn, therefore, as if for comfort, to any third circumstance, which can be introduced, without obvious absurdity, as a sort of connecting link, between the pairs of events. To suppose, that the mind should not have this disposition, would, indeed, be to suppose it void of that principle of curiosity,

without which there can be no inquiry of any kind. He who could believe, that, between all the visible phenomena, there are certain invisible agencies continually operating, which have as real an existence as all that he perceives, and could yet content himself with numbering the visible phenomena, and giving them names, without any endeavour to discover the intervening powers, by which he is constantly surrounded, or at least to form some slight guess, as to that universal machinery, by which he conceived all the wonders of nature to be wrought, must be a being as different from the common intellectual beings of this earth, as the perfect sage of the Stoics from the frail creatures, of mingled vice and virtue, that live and err around us. That, in considering the phenomena of nature, we should confine our attention to the mere antecedents and consequents, which succeed each other in regular series, is unquestionably the soundest advice that can be given. But it is sound advice, for this reason more than any other, that the regular series is, in truth, all that constitutes the phenomena; and that to search for any thing more, is not to have an unattainable object in view, but to have no conceivable object whatever. Then only can the inquirer be expected to content himself with observing and classing the sequences, which nature presents to us spontaneously, or in obedience to our art, when he is convinced, that all the substances which exist in the universe — God and the things which he has created — are every thing which truly exists in the universe, to which nothing can be added, which is not itself a new substance; that there can be nothing in the events of nature, therefore, but the antecedents and consequents which are present in them; and that these, accordingly, or nothing, are the

they are, at the same time, careful to tell us, that, although these causes are constantly operating before us, and are all which are truly acting before us, we must not hope that we shall ever be able to detect one of them; and, indeed, the prohibition of every attempt to discover the efficient causes of phenomena, —repeated in endless varieties of precept or reproof, —is the foundation of all their rules of philosophizing; as if the very information, that what we are to consider exclusively, in the phenomena of nature, is far less important, than what we are studiously to omit, were not, of itself, more powerful, in stimulating our curiosity to attempt the forbidden search, than any prohibition could be in repressing it. “*Felix qui potuit rerum cognoscere causas.*” This will for ever be the feeling of the inquirer, while he thinks that there are any causes more than those which he has already investigated. Even Newton himself, that sagest of observers and reasoners, who could say, with the simplicity of pure philosophy, “*Hypotheses non fingo,*” yet showed, as we have seen by one of the most hypothetical of his *Queries*, that he was not exempt from the error which he wished to discourage — that inordinate love of the unknown which must always lead those, who believe that there is something intermediate and undiscovered existing between events, to feel the anxious dissatisfaction of incomplete inquiry, in considering the antecedents and consequents which nature connects, and to turn, therefore, as if for comfort, to a circumstance, which can be introduced, without obvious absurdity, as a sort of connecting link between the pairs of events. To suppose, that the mind should not have this disposition, would be to suppose it void of that principle of

mind must depend, at least, as much on the laws of the mind affected, as on the laws of the substance that affects it. Whatever knowledge we may acquire of it, therefore, is relative only, and must be relative in all circumstances; though, instead of the few senses which connect us with it at present, we were endowed with as many senses as there are, perhaps, qualities of matter, the nature of which we are at present incapable of distinguishing; the only effect of such increased number of senses being, to render more qualities of matter known to us, not to make matter known to us in its very essence, as it exists without relation to mind.

"Tell me," says Micromegas, an inhabitant of one of the planets of the Dog Star, to the secretary of the Academy of Sciences in the planet Saturn, at which he had recently arrived in a journey through the heavens, — "Tell me, how many senses have the men on your globe?" — I quote, as perhaps the name has already informed you, from an ingenious philosophic romance of Voltaire, who, from various allusions in the work, has evidently had Fontenelle, the illustrious secretary of the French Academy of Sciences, in view, in the picture which he gives of the Saturnian secretary. — "We have seventy-two senses," answered the academician, "and we are every day complaining of the smallness of the number. Our imagination goes far beyond our wants. What are seventy-two senses! and how pitiful a boundary, even for beings with such limited perceptions, to be cooped up within our ring and our five moons! In spite of our curiosity, and in spite of as many passions as can result from six dozen of senses, we find our hours hang very heavily on our hands, and can always find time enough for yawning." — "I can very well believe it," says Micromegas, "for,

in our globe, we have very near one thousand senses, and yet, with all these, we feel continually a sort of listless inquietude and vague desire, which are for ever telling us that we are nothing, and that there are beings infinitely nearer perfection. I have travelled a good deal in the universe. I have seen many classes of mortals far beneath us, and many as much superior; but I have never had the good fortune to find any who had not always more desires than real necessities to occupy their life. And pray, how long may you Saturnians live, with your few senses?" continued the Sirian. "Ah! but a very short time, indeed!" said the little man of Saturn, with a sigh. "It is the same with us," said the traveller; "we are for ever complaining of the shortness of life. It must be an universal law of nature." "Alas!" said the Saturnian, "we live only five hundred great revolutions of the sun, (which is pretty much about fifteen thousand years of our counting.) You see well that this is to die almost the moment one is born. Our existence is a point—our duration an instant—our globe an atom. Scarcely have we begun to pick up a little knowledge, when death rushes in upon us, before we can have acquired any thing like experience. As for me, I cannot venture even to think of any project. I feel myself but like a drop of water in the ocean; and, especially now, when I look to you and to myself, I really feel quite ashamed of the ridiculous appearance which I make in the universe."

"If I did not know that you were a philosopher," replied Micromegas, "I should be afraid of distressing you, when I tell you, that our life is seven hundred times longer than yours. But what is even that? and, when we come to the last moment, to have lived a single day, and to have lived a whole eternity,

amount to the very same thing. I have been in countries where they live a thousand times longer than with us; and I have always found them murmuring, just as we do ourselves. But you have seventy-two senses, and they must have told you something about your globe. How many properties has matter with you?" "If you mean essential properties," said the Saturnian, "without which our globe could not subsist, we count three hundred: extension, impenetrability, mobility, gravity, divisibility, and so forth." "That small number," replied the gigantic traveller, "may be sufficient for the views which the Creator must have had with respect to your narrow habitation. Your globe is little; its inhabitants are so too. You have few senses; your matter has few qualities. In all this, Providence has suited you most happily to each other."

"The academician was more and more astonished with every thing which the traveller told him. At length, after communicating to each other a little of what they knew, and a great deal of what they knew not, and reasoning, as well and as ill, as philosophers usually do, they resolved to set out together on a little tour of the universe."¹

That with the one thousand senses of the Sirian, or even the seventy-two senses of the inhabitant of Saturn, our notions of matter would be very different from what they are at present, cannot be doubted; since we should assign to it qualities, corresponding with all the varieties of our six dozen or one thousand classes of sensations. But, even with all these sensations, it is evident, that we should still know as little of matter, independent of the phenomena which

¹ Voltaire Œuvres, tom. xiv. pp. 99-101. 4to edit. of 1771.

it exhibits in relation to us, as we know at this moment. Our definition of it would comprehend more phenomena; but it would still be a definition of its phenomena only. We might perhaps be able to fill up the Saturnian catalogue of three hundred essential properties, but these would be still only the relations of matter to our own perception. A change in the mere susceptibility of our organs of sense, or of our sentient mind, would be, relatively to us, like a change in the whole system of things, communicating, as it were, new properties to every object around us. A single sense additional, in man, might thus be, to external nature, like the creation of the sun, when he first burst upon it in splendour, "like the god of the new world," and pouring every where his own effulgence, seemed to shed on it the very beauties which he only revealed.

If our knowledge of matter be relative only, our knowledge of mind is equally so. We know it only as susceptible of feelings that have already existed; and its susceptibilities of feelings which have not arisen, but which may, in other circumstances, arise, we know as little, as the blind can be supposed to know of colours, or as we, with all our senses, know of the qualities which matter might exhibit to us, if our own organization were different. Of the essence of mind, then, we know nothing, but in relation to the states or feelings that form, or have formed, our momentary consciousness. Our knowledge is not absolute but relative; though, I must confess, that the term relative is applied, in an unusual manner, when, as in the present instance, the relative and correlative are the same. It is unquestionably the same individual mind which, in intellectual investigation, is at once the object and the observer. But the noble endowment of

memory, with which our Creator has blessed us, solves all the mystery of this singular paradox. In consequence of this one faculty, our mind, simple and indivisible as it truly is, is, as it were, multiplied and extended, expanding itself over that long series of sensations and emotions, in which it seems to live again, and to live with many lives. But for memory, there can be no question that the relation of thought to thought could not have been perceived; and that hence there could have been no philosophy whatever, intellectual or moral, physical or metaphysical. To this wonderful endowment, then, which gives us the past to compare with the present, we owe that most wonderful of relations, of which the same being is at once the object and the subject, contemplating itself, in the same manner, as it casts its view on objects that are distant from it, comparing thought with thought, emotion with emotion, approving its own moral actions, with the complacency with which it looks on the virtues of those whom it admires and loves, in the most remote nation or age, or passing sentence on itself, as if on a wretch whom it loathed, that was trembling with conscious delinquency, under the inquisition of a severe and all-knowing judge.

The past feelings of the mind, then, are, as it were, objects present to the mind itself, and acquire, thus truly, a sort of relative existence, which enables us to class the phenomena of our own spiritual being as we class the phenomena of the world without. The mind is that which we know to have been susceptible of all the variety of feelings which we remember: and it is only as it is susceptible of all these varieties of feeling, that we can have any knowledge of it. We define it, therefore, by stating its various susceptibilities, including more or fewer of these, in our definition,

as we may either have observed or remembered more or less, or generalized more or less what we have observed and remembered; precisely as, in our definition of matter, we include more or fewer qualities, according to the extent of our previous observation and arrangement.

That we know matter, only as relative to our own susceptibility of being affected by it, does not lessen the value of the knowledge of it which we are able to acquire; and, indeed, it is only as it is capable of affecting us, that the knowledge of it can be of any direct and immediate utility. It would, indeed, be the very absurdity of contradiction, to suppose ourselves acquainted with qualities which cannot affect us. But, even though this were possible, how profitless would the knowledge be, compared with the knowledge of the qualities which are capable of affecting us; like the knowledge of the seasons of the planet Saturn, or of the planets that have the Dog Star for their sun, compared with the more important knowledge of the seasons of our own globe, by which we have the comfort of anticipating, in the labours of spring, the abundance of autumn, and gather in autumn the fruits, which, as products of vernal labour, are truly fruits of the spring.

To know matter, even relatively, as our limited senses allow us to know it, is to have knowledge which can scarcely be called limited. Nothing indeed can seem more narrow in extent, if we think only of the small number of our senses, by which alone the communication can be carried on. But what infinity of objects has nature presented to each! In the mere forms and colours that strike our eyes, what splendid variety? the profusion of all things, that bloom or live, the earth, the ocean, the universe, and

almost God himself appearing to our very senses, in the excellence and beauty of the works which He has made!

It is the same with respect to the mind. Though we know it only by its susceptibilities of affection, in the various feelings of our momentary consciousness; and cannot hope to know it but as the permanent subject of all these separate consciousnesses; to know thus relatively only, the affections even of one single substance, is to have a field of the most boundless and inexhaustible wonders ever present and open to our inquiry! It may be said to comprehend every thing which we perceive, and remember, and imagine, and compare, and admire; all those mysterious processes of thought which, in the happy efforts of the philosopher and the poet, are concerned in the production of their noblest results, and which are not less deserving of our regard, as they are every moment exercised by all, in the humble intellectual functions of common life. In analyzing and arranging the mental phenomena, then, we consider phenomena, that are diversified, indeed, in individuals, but, as species, are still common to all; for there is no power possessed by the most comprehensive intellect, which it does not share, in some proportion, with the dullest and rudest of mankind. All men perceive, remember, reason,—all, to a certain degree at least, form their little theories both physical and metaphysical, of the conduct of their fellow-men, and of the passing events of nature; and all, occasionally, enliven their social intercourse, or their solitary hours, with inventions of fancy, that last but for a moment indeed, and are not worthy of lasting longer, but which are products of the same species of intellectual energy, that gave existence to those glorious works, to which ages have

listened with increasing reverence, and which, immortal as the spirits that produced them, are yet to command the veneration of every future age. When we see before us, in its finished magnificence, a temple appropriated to the worship of the Supreme Being, and almost worthy of being filled with his presence, we scarcely think, that it is erected according to the same simple principles, and formed of the same stone and mortar, as the plain dwellings around us, adapted to the hourly and humble uses of domestic life; and by a similar illusion, when we consider the splendid works of intellectual art, we can scarcely bring ourselves to think, that genius is but a form of general tendencies of association, of which all partake; and that its magnificent conceptions, therefore, rise, according to the same simple laws which regulate the course of thought of the vulgar. In this universality of diffusion as general tendencies, that may be variously excited by varying circumstances, our intellectual powers are similar to those other principles of our nature,—our emotions, and whatever feelings more immediately connected with moral action have been usually distinguished by the name of our active powers. In the philosophy of both, we consider, not a few distinguished individuals, as if possessed of principles essentially distinct in kind, but the species, man. They are to be found wherever there is a human being; and we do not infer with more certainty, when we perceive the impression of a foot upon the sand, that man has been there, than we expect to find in him, whatever may be his state of barbarism or civilization, some form of the common powers, and passions, which, though directed perhaps to different objects, we have felt and witnessed in the society around us.

"The two-legged animal," says Dr. Reid, "that eats of nature's dainties what his taste or appetite craves, and satisfies his thirst at the crystal fountain—who propagates his kind as occasion and lust prompt, repels injuries, and takes alternate labour and repose—is like a tree in the forest, purely of nature's growth. But this same savage has within him the seeds of the logician, the man of taste and breeding, the orator, the statesman, the man of virtue, and the saint; which seeds, though planted in his mind by nature, yet, through want of culture and exercise, must lie for ever buried, and be hardly perceivable, by himself, or by others."¹ Even of those passions of a prouder kind, which attract our attention only when they are on a theatre that allows their full display, some vestiges are to be traced universally; though, in different individuals, they may exist with very different degrees of influence, and though their influence, according to the degree of power possessed by the individual, may be attended with very different consequences, to the few, or the many comprehended within the wide or narrow circle, to which his power extends.

———Not kings alone,
Each villager has his ambition too;
No sultan prouder than his fetter'd slave.
Slaves build their little Babylons of straw,
Echo the proud Assyrian in their hearts,
And cry, Behold the wonders of my might.²

It is this universal diffusion of sympathies and emotions, indeed, which gives its whole force to morality, as of universal obligation; and renders ethics truly a science.

¹ Inquiry into the Human Mind; Introd. p. 7. 8vo. edit.

² Young's Night Thoughts, vii. 392-397.

Nature, in requiring the fruits of virtue from all, has not fixed the seeds of it only in a few breasts. "Nulli præclusa virtus est; omnibus patet, omnes admittit, omnes invitat, ingenuos, libertinos, servos, reges et exsules; non eligit domum, nec censum; nudo homine contenta est."¹ Virtue has no partial favours or exclusions. She is open to all, she admits all, she invites all. She asks no wealth nor ancestry; but she asks the man,—the master or the slave, the cottager and his lord, the sovereign and the exile.

Though we know mind, then, only relatively, in the series of feelings, of which we are conscious, as we know matter relatively in the series of phenomena which it exhibits to our observation, we have, in this relative knowledge, subjects worthy of the contemplation of beings permitted, in these shadowings of a higher power, to trace some faint image of the very majesty which formed them. Even of the humblest mind, as we have seen, the various affections, sensitive, intellectual, and moral, that arise in it as affections of our common nature, are truly admirable; and what an increase of sublimity do they acquire, in minds of higher powers! But still, it must be remembered, that even in minds the most sublime, as much as in the most humble, all which can be truly known, is the successive phenomena which they exhibit, not the essence of the spiritual substance itself; and that, even of these successive phenomena, though we become gradually acquainted with more and more, we probably never can arrive at any bound which is to limit their number. The susceptibilities of the mind, by which, in different circumstances, it may exist in different states, are certainly as truly

¹ Seneca de Beneficiis, lib. iii. c. 18.

infinite as the space which surrounds us, or as that eternity which, in its progress, measures the successions of our feelings, and all the other changes in the universe. Every new thought, or combination of thoughts, is in truth a new state, or affection, or phenomenon of the mind, and, therefore, a proof of the susceptibility of that new affection, as an original quality of the mind; and every rise in knowledge, from age to age, and from inquirer to inquirer, is thus only the development of susceptibilities which the mind possessed before, though the circumstances which at last called them forth, never existed till the moment of the development. What should we think of the half-naked savage of some barbarous island, if, in the pride of his ignorance, he were to conceive his own thoughts and feelings to be the noblest of which the human intellect is capable? and, perhaps, even the mind of a Newton is but the mind of such a savage, compared with what man is hereafter to become.

LECTURE X.

The same Subject continued.

GENTLEMEN, after laying down the general laws of physical inquiry, I had begun, in the conclusion of my last Lecture, to consider them, more particularly in their relation to the study of mind.

One very important circumstance of agreement, in the physical investigations of mind and matter, we found to be, that, of both matter and mind, the suc-

cessive phenomena are all which we truly know, though, by the very constitution of our nature, it is impossible for us not to ascribe these to some permanent subject. Matter is the permanent subject of certain qualities,—extension, and its consequent divisibility, attraction, repulsion; that is to say, it is the permanent exhibiter to us of certain varying phenomena which we observe. Mind is the permanent subject of certain qualities or states or affections of a different class,—perception, memory, reason, joy, grief, love, hate; that is to say, of certain varying phenomena of which we are conscious. What matter is, independent of our perception,—what mind is, independent of its temporary varieties of feeling, it is impossible for us to discover; since, whatever new knowledge of matter we can suppose ourselves to acquire, must be acquired by our perception, and must, therefore, be relative to it; and whatever new knowledge we can suppose ourselves to acquire of mind, must be itself a state or affection of the mind, and, therefore, only a new mental phenomenon to be added to those with which we were before acquainted, as one of the many states in which the permanent substance mind is capable of existing.

Since it is only by their relation to our own feelings, then, that substances can be known to us, beyond these relations it would be vain for us to think of penetrating; as vain, at least, as would be the attempts of the deaf to discover, by a process of reasoning, the nature of the sensations of sound, or of the blind to determine, not the lines of direction merely, in which the various coloured rays of light pass after refraction, for these they may optically determine, but the various sensations, corresponding with all the varieties of tint into which the sunbeams are broken by the drops of a

falling shower. The substance matter, the substance mind, are, in this respect, to the whole race of metaphysical inquirers, what the rainbow, as a series of colours, is to opticians, who have never seen.

The absurdity of such inquiries, into any thing more than the mere phenomena, if it be not sufficiently evident of itself, may, perhaps, be rendered more apparent by a very easy supposition. Let us imagine the permanent unknown substance matter, and the permanent unknown substance mind, to be rendered, by the same divine power which made them, altogether different in their own absolute essence, as they exist independently, but to exhibit relatively, precisely the same phenomena as at present, — that spring and summer, and autumn and winter, in every appearance that can affect our organs of perception, succeed each other as now, pouring out the same profusion of foliage, and flowers, and fruits, and, after the last gladness of the vintage, and the harvest, sweeping the few lingering blossoms, with those desolating blasts, which seem like the very destroyers of nature, while they are only leading in, with greater freshness, under the same benevolent eye of Heaven, the same delightful circle of beauty and abundance, — that, in mind, the same sensations are excited by the same objects, and are followed by the same remembrances, and comparisons, and hopes, and fears; in these circumstances, while all the phenomena which we observe, and all the phenomena of which we are conscious, continue exactly the same, can we believe that we should be able to discover the essential change, which, according to this supposition, had taken place in the permanent subjects of these unvaried phenomena! And if, as long as the external and internal phenomena continued exactly the same, we should be incapable of

discovering, or even suspecting, the slightest change, where by supposition there had been a change so great, how absurd is it to conceive that the changed or unchanged nature of the substance itself, as it exists independently of the phenomenon, ever can become known to us.

He, indeed, it may always safely be presumed, knows least of the mind, who thinks that he knows its substance best. "What is the soul?" was a question once put to Marivaux. "I know nothing of it," he answered, "but that it is spiritual and immortal." "Well," said his friend, "let us ask Fontenelle, and he will tell us what it is." "No," cried Marivaux; "ask any body but Fontenelle, for he has too much good sense to know any more about it than we do."

It is to the phenomena only, then, that our attention is to be given, not to any vain inquiries into the absolute nature of the substances which exhibit the phenomena. This alone is legitimate philosophy, — philosophy which must for ever retain its claim to our assent, amid the rise and fall of all those spurious speculations, to which our vanity is so fond of giving the names of theory and system. Whatever that may be, in itself, which feels, and thinks, and wills, — if our feelings, and thoughts, and volitions be the same, — all which we can know, and compare, and arrange, must be the same; and, while we confine our attention to these, the general laws of their succession which we infer, and the various relations which they seem to bear to each other, may be admitted equally by those whose opinions, as to the absolute nature of the feeling and thinking principle, differ fundamentally. It requires no peculiar supposition, or belief, as to the nature of the mind, to know, that its trains of thought are influenced by former habits or casual associations;

and every fact, which the immaterialist has accurately observed and arranged, with respect to the influence of habit or association, may thus, with equal reason, form a part of the intellectual and moral creed of the materialist also.

On these two systems it is not at present my intention to make any remarks ; all which I wish, now, is to explain to you, how independent the real philosophy of the mind is, of any fanciful conjectures, which may be formed, with respect to its essence. It differs from these, as Mr. Stewart has well observed, in the same manner "as the inquiries of Galileo, concerning the laws of moving bodies, differ from the disputes of the ancient Sophists, concerning the existence and the nature of motion;" or as the conclusions of Newton, with respect to the law of gravitation, differ from his query concerning the mode in which he supposed that gravity might possibly be produced. The hypothesis, involved in the query, you may admit or reject ; the conclusions, with respect to the law of gravitation itself, as far as relates to our planetary system, are, I may say, almost beyond your power of rejecting.

The philosophy of mind, then, and the philosophy of matter, agree in this respect, that our knowledge is, in both, confined to the mere phenomena. They agree also in the two species of inquiry which they admit. The phenomena of mind, in the same manner as we have seen in the case of matter, may be considered as complex and susceptible of analysis, or they may be considered as successive in a certain order, and bearing, therefore, to each other the reciprocal relation of causes and effects.

That we can know the phenomena, only as far as we have attended to their sequences, and that, with-

out experience, therefore, it would have been impossible for us to predict any of their successions, is equally true, in mind as in matter. Many of the successions, indeed, are so familiar to us, that it may appear to you, at first, very difficult to conceive that we should not have been able, at least with respect to them, to predict, originally, what antecedents would have been followed by what consequents. We may allow, certainly, that we should not have been able to foresee the pleasure which we receive from the finer works of imitative art — from the successions or co-existences, in music, of sounds, that, considered separately, would scarcely be counted among the sources of delight — from the charm of versification, that depends on circumstances so very slight, as to be altogether destroyed, and even converted into pain by the change of quantity of a single syllable. But that the remembrance of pleasure should not be attended with desire of enjoying it again, seems to us almost inconsistent with the very nature of the pleasing emotion. In like manner, we may allow, that we could not have predicted the sympathy which we feel with the distresses of others, when they arise from causes that cannot affect us, and yet make, for the time, the agony, which we merely behold, a part of our own existence. But we can scarcely think, that we require any experience to know, that the contemplation of pain, which we may ourselves have to endure, should be the cause of that painful feeling to which we give the name of fear, or that the actual suffering should be accompanied with the desire of relief. The truth is, however, that in all these cases, and in all of them equally, it would have been impossible, but for experience, to predict the consequent of any of the antecedents. The pleasure which we feel, in the con-

temptation of a work of art, and the pain which we feel at the sight of the misery of others, are as much the natural effects of states of mind preceding them, as the fear of pain is the effect of the consideration of pain as hanging over us. Our various feelings, similar or dissimilar, kindred or discordant, are all mere states of the mind; and there is nothing, in any one state of the mind, considered in itself, which necessarily involves the succession of any other state of mind. That particular state, for example, which constitutes the mere feeling of pain, instead of being attended by that different state which constitutes the desire of being freed from pain, might have continued as one uniform feeling, or might have ceased, and been succeeded by some other state, though, in the original adaptation of our mental frame by that Creator's wisdom which planned the sequences of its phenomena, the particular affection, which constitutes desire, had not been one of the innumerable varieties of affection of which the mind was for ever to be susceptible.

What susceptibilities the mind has exhibited in the ordinary circumstances in which it has been placed, we know, and they have been limited to a certain number, corresponding with the feelings which have arisen in these circumstances. But the Almighty Power, who fixed this particular number, might have increased or lessened the number at his pleasure, in the same manner, as he might, at his pleasure, have multiplied or diminished the whole number of his animated creatures; and, where there has been no limit but the will of the limiter, it is experience only which can give us any knowledge of the actual limitation. We are always too much inclined to believe, that we know what must have been, because we know what is; and to suppose ourselves acquainted, not merely

with the gracious ends which Supreme Goodness had in view, in creating us, but with the very object which each separate modification of our intellectual and moral constitution was intended to answer. I would not, indeed, go so far as Pope, in that passage of the *Essay on Man*, in which he seems to imply, that our ignorance of the wise and harmonious intentions of Providence, in the constitution of our mind, is like the ignorance of the inferior animals, as to the motives which influence the follies and inconsistencies of their capricious master.

When the proud steed shall know, why man restrains
His fiery course, or drives him o'er the plains ;
When the dull ox, why now he breaks the clod,
Is now a victim, and now Egypt's god, —
Then shall man's pride and dulness comprehend
His action's, passion's, being's, use and end ;
Why doing, suffering, check'd, impell'd ; and why
This hour a slave, the next a deity.¹

Our Divine Author has not left us, even now, to darkness like this. We know, in a great measure, the use and end of our actions and passions, because we know who it is who has formed us to do and to bear ; and who, from his own moral excellence, cannot have given us any susceptibility, even that of suffering, which does not tend, upon the whole, to strengthen virtue, and to consecrate, as in some purifying sacrifice, the sufferer of a moment to affections more holy, and happiness more divine. Yet, though we know in this general sense, our action's, passion's, being's use and end, as subservient to the universal plan of Infinite Goodness, we are not so well acquainted with the particular uses of each state of the mind, as to have

¹ Ep. i. 61-68. Works, vol. iii. pp. 5, 6.

been able to predict it, merely as a part or consequence of the plan. The knowledge of every successive modification of our thought, is still as much the result of experience, as if the gracious plan, to which all these successive modifications are instrumental, were wholly unknown to us. Yet, such is the influence of habit, in familiarizing us to phenomena, that we think that experience is not necessary, only in those cases in which the power of experience has been most frequently and familiarly felt; and while, in the rarer successions of feelings, we allow, that there are phenomena of the mind, which we could not have foreknown, we find it difficult to imagine, in the recurrences of the common mental phenomena, that, even originally, it could have required any peculiar foresight to predict, what we are now conscious of predicting with a readiness that seems to us almost like the instant glance of intuition.

In the philosophy of external matter, the greater or less familiarity of events produces an illusion exactly similar. There are certain phenomena, which, we readily admit, could not, of themselves, and without experience, have indicated to us, either the changes which preceded them, or the changes which were to follow; while there are other phenomena, more familiar, which seem to us to require no experience, for informing us, both of their antecedents and consequents, — merely because they have been of such frequent occurrence, that we do not remember the time when we were ignorant of them, or of the circumstances by which they are usually preceded and followed. That a magnetic needle should tend to the north, rather than to any other point — and that glass, or amber, rubbed in a certain manner, should exhibit the very striking phenomena of electricity, transmitting this

power through certain substances, and not transmitting it through others which have nothing peculiar in their sensible qualities, to mark them as less or better fitted for this communication, appear to us to be facts, which we could not have known till we had actually witnessed them. But that a stone, rolled from the hand, should continue to move in the same direction after quitting the hand, seems a fact, which it must have been easy for us to foresee. We are not aware, that it is only the more familiar occurrence of the one event, than of the others, which makes its sequence appear more obvious; and that, but for this greater familiarity, we might as readily have supposed, that a stone, after quitting the hand which flung it, should have remained in the air, or fallen to the ground, as that the needle, without any tendency to the north, would remain stationary, to whatever point of the compass we might turn it.

Such is the influence of early acquaintance with the more frequent and obvious events, whether in mind or in matter. We have become familiar with them, and with their causes and consequences, long before reflection; and it is not very wonderful, that we should conceive ourselves to have known always what we do not remember to have ever learned.

That to know, in the series of mental phenomena, what are the antecedents, and what their consequents, is one great branch of the philosophy of mind, I surely need not attempt to demonstrate; and it would be equally superfluous to demonstrate its importance, especially after the remarks,—if even these were necessary,—which I made in a former lecture; since it is not merely as a very interesting branch of speculative knowledge that it is valuable, but, as I then showed, still more valuable, as the foundation of every intel-

lectual art, especially of those noble and almost divine arts, which have, for their immediate object, the illumination and amendment of mankind, — the art of training ignorance to wisdom, and even wisdom itself to knowledge still more sublime, — of fixing youthful innocence in the voluntary practice of virtue, that is as yet little more than an instinct of which it is scarcely conscious, — of breathing that moral inspiration, which strengthens feeble goodness, when it is about to fall, tames even the wildest excesses of the wildest passions, and leads back, as if by the invisible power of some guardian spirit, even guilt itself to the happiness which it had lost, and the holier wishes which it rejoices to feel once more.

Since the phenomena of the mind, however, are obviously successive, like those of matter, the consideration of the sequences of the mental phenomena, and the arrangement of them in certain classes, may appear to you sufficiently analogous to the consideration and arrangement of the sequences of the phenomena of the material world. But that there should be any inquiries in the philosophy of mind corresponding with the inquiries into the composition of bodies, may appear to you improbable, or almost absurd; since the mind, and consequently its affections, — which I use as a short general term for expressing all the variety of the modes in which it can be affected, and which, therefore, are only the mind itself as it exists in different states, — must be always simple and indivisible. Yet, wonderful, or even absurd, as it may seem, — notwithstanding the absolute simplicity of the mind itself, and consequently of all its feelings or momentary states, — the science of mind is, in its most important respects, a science of analysis, or of a process which I have said to be virtually the

same as analysis: and it is only as it is in this virtual sense analytical, that any discovery, at least that any important discovery, can be expected to be made in it.

It is, indeed, scarcely possible to advance, even a single step, in intellectual physics, without the necessity of performing some sort of analysis, by which we reduce to simpler elements, some complex feeling that seems to us virtually to involve them. In the mind of man, all is in a state of constant and ever-varying complexity, and a single sentiment may be the slow result of innumerable feelings. There is not a single pleasure, or pain, or thought, or emotion, that may not, — by the influence of that associating principle, which is afterwards to come under our consideration, — be so connected with other pleasures, or pains, or thoughts, or emotions, as to form with them, for ever after, an union the most intimate. The complex, or seemingly complex, phenomena of thought, which result from the constant operation of this principle of the mind, it is the labour of the intellectual inquirer to analyze, as it is the labour of the chemist to reduce the compound bodies, on which he operates, however close and intimate their combination may be, to their constituent elements. The process, and the instruments by which the analyses are carried on, are, indeed, as different as matter is from mind,—cumbrous as matter, in the one case,—in the other, simple and spiritual as mind itself. The aggregates of matter we analyze by the use of other matter, adding substance after substance, and varying manipulation after manipulation: the complex mental phenomena we analyze virtually by mere reflection; the same individual mind being the subject of analysis, the instrument of analysis, and the analyzing inquirer.

When I speak, however, of the union of separate thoughts and feelings in one complex sentiment or emotion, and of the analytic power of reflection or reason, it must not be conceived that I use these words in a sense precisely the same as when they are applied to matter. A mass of matter, as we have seen, is, in truth, not one body merely, but a multitude of contiguous bodies; all of which, at the time, may be considered as having a separate existence, and as placed together more by accidental apposition, than by any essential union;—and analysis is nothing more than what its etymology denotes, a loosening of these from each other. In strictness of language, this composition and analysis cannot take place in mind. Even the most complex feeling is still only one feeling; for we cannot divide the states or affections of our mind into separate self-existing fractions, as we can divide a compound mass of matter into masses which are separate and self-existing,—nor distinguish half a joy or sorrow from a whole joy or sorrow. The conception of gold, and the conception of a mountain, may separately arise, and may be followed by the conception of a golden mountain; which may be said to be a compound of the two, in the sense in which I use that word, to express merely, that what is thus termed compound or complex is the result of certain previous feelings, to which, as if existing together, it is felt to have the virtual relation of equality, or the relation which a whole bears to the parts that are comprehended in it. But the conception of a golden mountain is still as much one state or feeling of one simple mind, as either of the separate conceptions of gold and of a mountain which preceded it. In cases of this kind, indeed, it is the very nature of the resulting feeling to

seem to us thus complex; and we are led, by the very constitution of our mind itself, to consider what we term a complex idea, as equivalent to the separate ideas from which it results, or as comprehensive of them,—as being truly to our conception—though to our conception only—and, therefore, only virtually or relatively to us the inquirers—the same, as if it were composed of the separate feelings coexisting, as the elements of a body coexist in space.

It is this feeling of the relation of certain states of mind to certain other states of mind which solves the whole mystery of mental analysis, that seemed at first so inexplicable,—the virtual decomposition, in our thought, of what is, by its very nature, indivisible. The mind, indeed, it must be allowed, is absolutely simple in all its states; every separate state or affection of it must, therefore, be absolutely simple; but in certain cases, in which a feeling is the result of other feelings preceding it, it is its very nature to appear to involve the union of those preceding feelings; and to distinguish the separate sensations, or thoughts, or emotions, of which, on reflection, it thus seems to be comprehensive, is to perform an intellectual process, which, though not a real analysis, is an analysis at least relatively to our conception. It may still, indeed, be said with truth, that the different feelings,—the states or affections of mind which we term complex,—are absolutely simple and indivisible, as much as the feelings or affections of mind which we term simple. Of this there can be no doubt. But the complexity with which alone we are concerned is not absolute but relative,—a seeming complexity, which is involved in the very feeling of relation of every sort. That we are thus impressed with certain feelings of relation of conceptions to concep-

tions, no one can doubt who knows, that all science has its origin in these very feelings; and equivalence, or equality, is one of those relations, which, from its very constitution, it would be as impossible for the mind, in certain circumstances, not to feel, as it would be impossible for it, in certain other circumstances, not to have those simple feelings which it compares. With perfect organs of vision, and in the full light of day, it is not possible for us to look on a tree, or a rock, without perceiving it; but it is not more possible for us to form a conception of two trees, without regarding this state of mind, simple though it truly is, when absolutely considered as virtually involving, or as equal to, two of those separate feelings, which constituted the conception of a single tree.

On this mere feeling of virtual equivalence is founded all the demonstration of those sciences which claim the glory of being peculiarly demonstrative; our equations and proportions of abstract number and quantity involving continually this analytic valuation of notions, as reciprocally proportional. Our conception of an angle of forty-five degrees is one state or affection of mind,—one state of one simple indivisible substance; such, too, is our conception of a right angle. Our notion of four or eight is as much one affection of mind as our notion of a simple unit. But, in reflecting on the separate states of mind which constitute these notions, we are impressed with certain relations which they seem to us reciprocally to bear, and we consider the angle of forty-five degrees as equal to half the angle of ninety degrees, and our notion of eight as involving or equal to two of four. If one state of mind, which constitutes the notion of a certain abstract number or quantity, had not been considered in this sort of virtual comprehensiveness, as bearing the relation of equality, or proportion to

other states of mind, which constitute other abstract notions of the same species, mathematics would not merely have lost their certainty, but there could not, in truth, have been any such science as mathematics.

The intellectual analysis, which appears to me to constitute so important a part of the science of mind, is nothing more than the successive development, in application to the various mental phenomena, of this feeling of equivalence, or comprehensiveness, which is not confined to the mathematical notions of number and quantity, (though, from the greater simplicity of these, their equality or proportion may be more accurately distinguished,) but extends to every thought and feeling which we regard as complex, that is to say, to almost every thought and feeling of which the mind is susceptible. We compare virtue with virtue, talent with talent, not, indeed, with the same precision, but certainly in the same manner, and with the same feeling of proportion, as we compare intellectually one angle with another; and we ask, what ideas are involved in our complex notions of religion and government, with as strong a feeling that a number of ideas are virtually involved or comprehended in them, as when we ask, how often the square of two is repeated in the cube of six.

Analysis, then, in the science of mind, you will perceive, is founded wholly on the feeling of relation which one state of mind seems to us to bear to other states of mind, as comprehensive of them; but, while this seeming complexity is felt, it is the same thing to our analysis, as if the complexity, instead of being virtual and relative only, were absolute and real. It may be objected to the application of the term analysis to the science of mind, that it is a term which, its etymology shows, as I have already admitted, to be borrowed from matter, and to convey, as applied to

the mind, a notion in some degree different from its etymological sense. But this is an objection which may be urged, with at least equal force, against every term, or almost every term of our science. In our want of a peculiar metaphysical language, we are obliged in this, as in every other case, to borrow a metaphorical language from the material world; and we are very naturally led to speak of mental composition and analysis, since to the mind which feels the relation of equivalence or comprehensiveness, it is precisely the same thing as if our ideas and emotions, that result from former ideas and emotions, and are felt by us as if involving these in one complex whole, could be actually divided into the separate elements which appear to us thus virtually or relatively to be comprehended in them.

It is from having neglected this branch of the physical investigation of the mind, — by far the more important of the two, — and having fixed their attention solely on the successions of its phenomena, that some philosophers have been led to disparage the science as fruitless of discovery, and even to deride the pretensions or the hopes of those who do not consider it as absolutely exhausted; — I will not say now merely, in the present improved state of the science, but as not exhausted almost before philosophy began, in the rude consciousness of the rudest savage, who saw, and remembered, and compared, and hoped, and feared; and must, therefore, it is said, have known what it is to see, and remember, and compare, and hope, and fear.

If the phenomena of the mind were to be regarded merely as successive, — which is one only of the two lights in which they may be physically viewed, — it might, indeed, be said, with a little more appearance

of truth, that this mere succession must be as familiar to the unreflecting mind as to the mind of the philosopher; though, even in this limited sense, the remark is far from being accurate. But the phenomena have other relations as well as those of succession,—relations which are not involved in the mere consciousness of the moment, but are discoverable by reflection only,—and to the knowledge of which, therefore, addition after addition may be made by every new generation of reflecting inquirers. From the very instant of its first existence, the mind is constantly exhibiting phenomena more and more complex: sensations, thoughts, emotions, all mingling together, and almost every feeling modifying, in some greater or less degree, the feelings that succeed it; and as, in chemistry, it often happens, that the qualities of the separate ingredients of a compound body are not recognizable by us, in the apparently different qualities of the compound itself,—so, in this spontaneous chemistry of the mind, the compound sentiment that results from the association of former feelings, has, in many cases, on first consideration, so little resemblance to these constituents of it, as formerly existing in their elementary state, that it requires the most attentive reflection to separate, and evolve distinctly to others, the assemblages which even a few years may have produced. Indeed, so complex are the mental phenomena, and so difficult of analysis, even in those most common cases, which may be said to be familiar to all, that it is truly wonderful that the difficulty of this analysis, and the field of inquiry which this very difficulty opens, should not have occurred to the disparagers of intellectual discovery, and made them feel, that what they were not able to explain, could not be so well known to all mankind as to be absolutely incapable of additional

illustration. The savage, they will tell us, is conscious of what he feels in loving his country, as well as the sage; but, does he know as well, or can even the sage himself inform us with precision, what the various elementary feelings have been, that have successively modified, or rather that have constituted this local attachment? The peasant, indeed, may have the feeling of beauty, like the artist who produces it, or the speculative inquirer, who analyzes this very complex emotion —

Ask the swain,
 Who journeys homeward, from a summer day's
 Long labour, why, forgetful of his toils
 And due repose, he loiters to behold
 The sunshine gleaming, as through amber clouds,
 O'er all the western sky? Full soon, I ween,
 His rude expression, and untutor'd air,
 Beyond the power of language, will unfold
 The form of Beauty smiling at his heart,
 How lovely, how commanding! ¹

But the mere emotion which beauty produces, is not the knowledge of the simpler feelings that have composed or modified it; and though the pleasure and admiration were to continue exactly the same, the peasant would surely have learned something, if he could be made to understand that beauty was more than the form and colour which his eye perceived. What is thus true of beauty, as differently understood by the peasant and the philosopher, is true, in like manner, of all the other complex mental phenomena. It would, indeed, be as reasonable to affirm, that because we all move our limbs, we are all equally acquainted with the physiology of muscular motion; or, to take a case still more exactly appro-

¹ Pleasures of Imagination, book iii. 526-535.

priate, that we know all the sublimest truths of arithmetic and geometry, because we know all the numbers and figures of the mere relations of which these are the science,—as that we are all acquainted with the physiology of the mind, and the number of elements which enter into our various feelings, because we all perceive, and remember, and love, and hate. It is, it will be allowed, chiefly, or perhaps wholly, as it is analytical, that the science of mind admits of discovery; but, as a science of analysis, in which new relations are continually felt on reflection, it presents us with a field of discovery as rich, and, I may say, almost as inexhaustible in wonders, as that of the universe without.

“It is thus,” I have elsewhere remarked, “even in phenomena, which seem so simple as scarcely to have admitted combination, what wonders have been developed by scientific inquiry! Perception itself, that primary function of the mind, which was surely the same before Berkeley examined the laws of vision as at present, is now regarded by us very differently, in relation to the most important of its organs; and it would not be easy to find, amid all the brilliant discoveries of modern chemistry, and even in the whole range of the physics of matter, a proposition more completely revolting to popular belief, than that which is now the general faith of philosophers, that the sense of sight, which seems to bring the farthest hills of the most extended landscape, and the very boundlessness of space before our view, is, of itself, incapable of showing us a single line of longitudinal distance.”¹

If, as has been strangely affirmed, the science of

¹ Inquiry into the Relation of Cause and Effect, 2d edition, pp. 32, 33.

mind be a science that is, by its very nature, unsusceptible of improvement by discovery, it must have been so, before the time of Berkeley as now, and it might have been a sufficient answer to all the arguments which he adduced in support of his theory of vision, that the phenomena which he boasted to have analyzed, were only the common and familiar phenomena of a sense that had been exercised by all mankind.

"The vulgar," I have said, "would gaze with astonishment, were they to perceive an electrician inflame gunpowder with an icicle; but they would not be less confounded by those dazzling subtleties with which metaphysicians would persuade them, that the very actions which they feel to be benevolent and disinterested, had their source in the same principle of selfishness which makes man a knave or a tyrant. That this particular doctrine is false, is of no consequence: the whole theory of our moral sentiments presents results which are nearly as wonderful; and indeed, the falseness of any metaphysical doctrine, if rightly considered, is itself one of the strongest proofs that the science of mind is a science which admits of discovery; for, if all men had equal knowledge of all the relations of all the phenomena of their mind, no one could advance an opinion on the subject, with real belief of it, which another could discover to be erroneous. In the different stages of the growth of a passion, what a variety of appearances does it assume; and how difficult is it often to trace, in the confusion and complication of the paroxysm, those calm and simple emotions in which, in many cases, it originated! The love of domestic praise, and of the parental smile of approbation, which gave excellence to the first efforts of the child, may expand, with little

variation, into the love of honest and honourable fame; or, in more unhappy circumstances, may shoot out from its natural direction, into all the guilt and madness of atrocious ambition;—and can it truly be maintained, or even supposed for a moment, that all this fine shadowing of feelings into feelings, is known as much to the rudest and most ignorant of mankind, as it is to the profoundest intellectual inquirer? How different is the passion of the miser, as viewed by himself, by the vulgar, and by philosophers! He is conscious himself only of the accuracy of his reasonings on the probabilities of future poverty, of a love of economy, and of temperance, and perhaps too of strict and rigid justice. To common observers, he is only a lover of money. They content themselves with the passion, in its mature state; and it would not be easy to convince them, that the most self-denying avarice involves as its essence, or at least originally involved, the love of those very pleasures and accommodations, which are now sacrificed to it without the least apparent reluctance.”¹

“This light and darkness in our chaos join’d,
What shall divide? The God within the mind.”

There is, indeed, a chaos in the mind of man. But there is a spirit of inquiry, which is for ever moving over it, slowly separating all its mingled elements. It is only when these are separated, that the philosophy of mind can be complete, and incapable of further discovery. To say that it is now complete, because it has in it every thing which can be the subject of analysis, is as absurd as it would be to suppose that the ancient chaos, when it contained merely the elements of things, before the Spirit of God

¹ Inquiry into the Relation of Cause and Effect, 2d edition, pp. 26–30, with some alterations and exclusions.

moved upon the waters of the abyss, was already that world of life, and order, and beauty, which it was afterwards to become.

The difficulty which arises in the physical investigation of the mind, from the apparent simplicity of those thoughts and feelings, which, on more attentive reflection, are felt to be as if compounded of many other thoughts and feelings, that have previously existed together, or in immediate succession, is similar to the difficulty which we experience in the physics of matter from the imperfection of our senses, that allows us to perceive masses only, not their elemental parts, and thus leads us to consider as simple bodies, what a single new experiment may prove to be composed of various elements.

In the intellectual world, the slow progress of discovery arises, in like manner, from the obstacle which our feeble power of discrimination presents to our mental analysis. But, in mind, as well as in matter, it must be remembered, that it is to this very feebleness of our discriminating powers, the whole analytic science owes its origin. If we could distinguish instantly and clearly, in our complex phenomena of thought, their constituent elements; if, for example, in that single and apparently simple emotion, which we feel, on the sight of beauty, as it lives before us, or in the contemplation of that ideal beauty, which is reflected from works of art, we could discover, as it were, in a single glance, all the innumerable feelings which, perhaps, from the first moment of life, have been conspiring together, and blending in the production of it,—we should then feel as little interest in our theories of taste, as, in a case formerly supposed, we should have done in our theories of combustion, if the most minute changes that take

place in combustion had been at all times distinctly visible. The mysteries of our intellect, the “*altæ penetralia mentis*,” would then lie for ever open to us; and what was said poetically of Hobbes in the beautiful verses addressed to him on his work *De Natura Hominis*, would be applicable to all mankind not poetically only, but in the strictness of philosophic truth.

Quæ magna cœli mœnia, et tractus maris,
Terræque fines, siquid aut ultra est, capit,
Mens ipsa tandem capitur: Omnia hactenus
Quæ nosse potuit, nota jam primum est sibi.

Consultor audax, et Promethei potens
Facinoris animi! quis tibi dedit deus
Hæc intueri seculis longe abdita,
Oculosque luce tinxit ambrosia tuos?
Tu mentis omnia, at tuæ nulla est capax.
Hac laude solus fruiere: divinum est opus
Animam creare; proximum huic, ostendere.

Hic cerno levia affectuum vestigia,
Gracilesque Sensûs lineas; quibus
Veniantur alis blanduli Cupidines,
Quibusque stimulis urgeant Iræ graves,
Hic et Dolores et Voluptates suos
Produnt recessus; ipse nec Timor latet.

LECTURE XI.

Application of the Laws of Physical Inquiry to the Philosophy of Mind, concluded — On Consciousness, and on Mental Identity.

IN my last Lecture, Gentlemen, I considered, very fully, the two species of inquiry which the philosophy of mind admits, in exact analogy to the two species

of inquiry in the philosophy of matter,—the consideration of the mental phenomena, as successive, and therefore susceptible of arrangement in the order of their succession, as causes and effects,—and the consideration of them as complex, and therefore susceptible of analysis. I stated to you, that it was chiefly, if not wholly, in this latter view, as analytical, that I conceived the philosophy of mind to be a science of progressive discovery; though, as a science of analysis, it has not merely produced results, as astonishing, perhaps, in some cases, as any of those which the analysis of matter has exhibited, but presents still a field of inquiry that may be considered as inexhaustible; since the mind cannot exist without forming continually new combinations, that modify its subsequent affections, and vary, therefore, the products, which it is the labour of our intellectual analysis to reduce to their original elements.

What the chemist does, in matter, the intellectual analyst does in mind; the one distinguishing, by a purely mental process of reflection, the elements of his complex feelings, as the other operates on his material compounds, by processes that are themselves material. Though the term analysis, however, may be used in reference to both processes, the mental, as well as the material, since the result of the process is virtually the same in both, it has been generally employed by philosophers, in treating of the mind, without any accurate definition of the process; and I was careful, therefore, to explain to you the peculiar meaning, in which it is strictly to be understood in our science; that you might not extend to the mind and its affections, that essential divisibility, which is inconsistent with its very nature; and suppose that, when we speak of complex notions, and of thoughts

and feelings, that are united by association with other thoughts and feelings, we speak of a plurality of separable things. The complex mental phenomena, as I explained to you, are complex only in relation to our mode of conceiving them. They are, strictly and truly, as simple and indivisible states of a substance, which is necessarily in all its states simple and indivisible — the results, rather than the compounds, of former feelings, — to which, however, they seem to us, and from the very nature of the feelings themselves, cannot but seem to us, to bear the same species of relation, which a whole bears to the parts that compose it. The office of intellectual analysis, accordingly, in the mode in which I have explained it to you, has regard to this relation only. It is to trace the various affections or states of mind that have successively contributed to form or to modify any peculiar sentiment or emotion, and to develop the elements, to which, after tracing this succession, the resulting sentiment or emotion is felt by us to bear virtually that relation of seeming comprehensiveness of which I spoke.

If, indeed, our perspicacity were so acute that we could distinguish immediately all the relations of our thoughts and passions, there could evidently be no discovery in the science of mind ; but, in like manner, what discovery could there be, in the analysis of matter, if our senses were so quick and delicate, as to distinguish immediately all the elements of every compound ? It is only slowly that we discover the composition of the masses without ; and we have therefore a science of chemistry : — It is only slowly that we discover the relations of complex thought to thought ; and we have therefore a science of mental analysis.

It is to the imperfection of our faculties then, as forcing us to guess and explore what is half-concealed from us, that we owe our laborious experiments and reasonings, and consequently all the science which is the result of these ; and the proudest discoveries which we make, may thus, in one point of view, whatever dignity they may give to a few moments of our life, be considered as proofs and memorials of our general weakness. If, in its relation to matter, philosophy be founded, in a very great degree, on the mere badness of our eyes, which prevents us from distinguishing accurately the minute changes that are constantly taking place in the bodies around us ; we have seen, in like manner, that, in its relation to the mind, it is founded chiefly, or perhaps wholly, on the imperfection of our power of discriminating the elementary feelings which compose our great complexities of thought and passion ; the various relations of which are felt by us only on attentive reflection, and are, therefore, in progressive discovery, slowly added to relations that have before been traced. In both cases, the analysis, necessary for this purpose, is an operation of unquestionable difficulty. But it is surely not less so, in mind, than in matter ; nor, when nature exhibits all her wonders to us in one case, in objects that are separate from us, and foreign ; and, in the other, in the intimate phenomena of our own consciousness, can we justly think, that it is of ourselves we know the most. On the contrary, strange as it may seem, it is of her distant operations that our knowledge is least imperfect ; and we have far less acquaintance with the sway which she exercises in our own mind, than with that by which she guides the course of the most remote planet, in spaces beyond us, which we rather calculate than conceive. The only science, which, by its simplicity and

comprehensiveness, seems to have attained a maturity that leaves little for future inquiry, is not that which relates immediately to man himself, or to the properties of the bodies on his own planet, that are ever acting on his perceptive organs, and essential to his life and enjoyment; but that which relates to the immense system of the universe, to which the very orb, that supports all the multitudes of his race, is but an atom of dust, and to which himself, as an individual, is as nothing.

Could he, whose rules the rapid comet bind,
Describe or fix one movement of his mind?
Who saw its fires here rise, and there descend,
Explain his own beginning or his end?

Go, wondrous creature! mount where science guides,
Go, measure earth, weigh air, and state the tides;
Instruct the planets in what orbs to run,
Correct old Time, and regulate the sun;
Go, soar with Plato to th' empyreal sphere,
To the first good, first perfect, and first fair;
Go, teach eternal wisdom how to rule—
Then drop into thyself, and be a fool!¹

That man should know so much of the universe, and so very little of himself, is indeed one of the circumstances which, in the language of the same poet, most strongly characterize him, as the “jest and riddle” of that world, of which he is also no less truly “the glory.”

“That the intelligence of any being,” to use the words of D'Alembert, “should not pass beyond certain limits—that, in one species of beings, it should be more or less circumscribed than in another,—all this is not surprising, more than that a blade of grass should be less tall than a shrub, or a shrub than an

¹ Pope's *Essay on Man*, Ep. ii. 35-59; 19-24; and 29, 30.

oak. But that the same being should be at once arrested by the narrow circle which nature has traced around him, and yet constantly reminded, that, beyond these limits, there are objects which he is never to attain — that he should be able to reason, till he lose himself, on the existence and nature of these objects, though condemned to be eternally ignorant of them — that he should have too little sagacity to resolve an infinity of questions, which he has yet sagacity enough to make — that the principle within us, which thinks, should ask itself in vain, what it is which constitutes its thought, and that this thought, which sees so many things, so distant, should yet not be able to see itself, which is so near — that self, which it is notwithstanding always striving to see and to know, — these are contradictions, which, even in the very pride of our reasoning, cannot fail to surprise and confound us."

All that remains for us in that impossibility which nature has imposed on us of attaining a more intimate knowledge of the essence and constitution either of mind or of matter, is to attend to the phenomena which they present, analyzing whatever is complex, and tracing the order of every sequence. By attentive reflection on the phenomena themselves, and on all the circumstances which precede or follow them, we shall be able to discover the relations which they mutually bear, and to distinguish their casual coincidence, or succession, from those invariable relations which nature has established among them as causes and effects. This, humble as it may seem, is, as I have said, the true philosophy of man; because it is all of which man is capable. To inquire, as may be thought, more deeply into the essences of things, or the nature of certain supposed bonds by which they are connected, is to show, not that we have advanced

far in the progress of science, but that we have gone far astray ; not that we know more than philosophers of humbler views and pretensions, but that we know less ; since it proves that we are unacquainted with the limits within which nature has bounded our prospect, and have not attained that prime knowledge which consists in knowing how little can be known.

If the philosophy, not of mind only, but of the universe, is to be found, as Hobbes has boldly said, within ourselves, — in the same manner as the perfect statue is to be found in the rude block of the quarry, when all the superfluous mass, that adheres to it, has been removed, — in no respect can it more justly be said to be in our own minds than in this, that it is only by knowing the true extent, and consequently the limits, of our intellectual powers, that we can form any rational system of philosophic investigation. Then, indeed, philosophy may be truly said, in his strong figurative language, to be human reason herself, hovering over all created things, and proclaiming their order, their causes, and effects. “*Philosophiam noli credere eam esse, per quam fiunt lapides philosophici, neque illam quam ostendant codices metaphysici ; sed Rationem Humanam naturalem per omnes res creatas sedulo volitantem, et de earum ordine, causis, et effectibus, ea quæ vera sunt renuntiantem. Mentis ergo tuæ, et totius mundi filia philosophia in te ipso est ; nondum fortasse figurata, sed genitori mundo qualis erat in principio informi similis. Faciendum ergo tibi est quod faciunt statuarii, qui materiam exsculpenes supervacaneam, imaginem non faciunt sed inveniunt.*”¹

After these remarks on physical inquiry in general, and its particular application to our own science, I

¹ Ad Lectorem. — A Note prefixed to the *Elementa Philosophiæ*. 4to. Amstelod. 1688.

trust that we shall now proceed to observe, and analyze, and arrange the mental phenomena, with clearer views, both of the materials on which we have to operate, and of the nature of the operations which we have to perform. We may consider the mind as now lying open before us, presenting to us all its phenomena, but presenting them in assemblages, which it is to be our labour to separate and arrange. In this separation and arrangement, there are difficulties, I confess, of no slight kind. But I trust that you have the spirit which delights in overcoming difficulties, and which, even if its most strenuous exertions should fail, delights in the very strenuousness of the endeavour. In what admits our analysis, and in what transcends it, we shall always find much that is truly wonderful in itself and deserving of our profoundest admiration; and even in the obscurest parts of the great field of mind, though we may see only dimly, and must, therefore, be cautious in inquiring, and fearful of pronouncing, we may yet, perhaps, be opening paths that are to lead to discovery, and, in the very darkness of our search, may perceive some gleams of that light, which, though now only dawning upon us, is to brighten on the inquirers of other ages.

In proceeding to examine and compare the mental phenomena, the first circumstance that strikes us, prior to any attempt to arrange them in classes, is, that the mind which exhibits these is susceptible of a variety of feelings, every new feeling being a change of its state; and, indeed, it is by such changes alone that it manifests itself, either in our own consciousness, or in the actions of our fellow-men. If it could exist only in one everlasting state, such as now constitutes the feeling of any particular moment, it is

quite superfluous to say that it could not reason upon this state, for this very reasoning would itself imply the change which is supposed to be impossible; and as little could this one unchanged and unchangeable feeling be an object of reasoning to others, even if there were any mode of its becoming manifest to them, which there evidently could not be. It is, perhaps, even not too extravagant an assertion of Hobbes, who supposes a mind so constituted as to perceive only one colour, and to perceive this constantly; and affirms, that, in that case, it would be absurd to say that it had any perception at all, being rather, as he expresses it, stupified than seeing. “*Attonitum esse et fortasse aspectare eum, sed stupentem dicerem, videre non dicerem; adeo sentire semper idem, et non sentire, ad idem recidunt.*”

Mind, then, is capable of existing in various states; an enumeration of the leading classes of which, as I before remarked, is all that constitutes our definition of it. It is that, we say, which perceives, remembers, compares, grieves, rejoices, loves, hates; and though the terms, whatever they may be, that are used by us, in any such enumeration, may be few, we must not forget, that the terms are mere inventions of our own for the purpose of classification, and that each of them comprehends a variety of feelings, that are as truly different from each other as the classes themselves are different. Perception is but a single word; yet, when we consider the number of objects that may act upon our organs of sense, and the number of ways in which their action may be combined, so as to produce one compound effect, different from that which the same objects would produce separately, or in other forms of combination, how many are the feelings which this single

word denotes!—so many, indeed, that no arithmetical computation is sufficient to measure their infinity.

Amid all this variety of feelings, with whatever rapidity the changes may succeed each other, and however opposite they may seem, we have still the most undoubting belief, that it is the same individual mind which is thus affected in various ways. The pleasure which is felt at one moment has indeed little apparent relation to the pain that was perhaps felt a few moments before; and the knowledge of a subject, which we possess, after having reflected on it fully, has equally little resemblance to our state of doubt when we began to inquire, or the total ignorance and indifference which preceded the first doubt that we felt. It is the same individual mind, however, which, in all these instances, is pleased and pained, is ignorant, doubts, reflects, knows. There is something “changed in all, and yet in all the same,” which at once constitutes the thoughts and emotions of the hour, and yet outlives them,—something, which, from the temporary agitations of passion, rises unaltered and everlasting, like the pyramid, that lifts still the same point to heaven, amid the sands and whirlwinds of the desert.

The consideration of the mind, as one substance, capable of existing in a variety of states, according as it is variously affected, and constituting, in these different states, all the complex phenomena of thought and feeling, necessarily involves the consideration of consciousness, and of personal identity. To the examination of these, accordingly, I now proceed, as essential to all the inquiries and speculations in which we are afterwards to be engaged; since, whatever

powers or susceptibilities we may consider as attributes of the mind, this consideration must always suppose the existence of certain phenomena, of which we are conscious, and the identity of the sentient or thinking principle, in which that consciousness resides, and to which all the varieties of those ever-changing feelings which form the subjects of our inquiry, are collectively to be referred.

Our first inquiry, then, is into the nature of Consciousness.

In the systems of philosophy, which have been most generally prevalent, especially in this part of the island, consciousness has always been classed as one of the intellectual powers of the mind, differing from its other powers, as these mutually differ from each other. It is accordingly ranked by Dr. Reid, as separate and distinct, in his catalogue of the intellectual powers; and he says of it, that "it is an operation of the understanding of its own kind, and cannot be logically defined. The objects of it are our present pains, our pleasures, our hopes, our fears, our desires, our doubts, our thoughts of every kind; in a word, all the passions, and all the actions and operations of our own minds, while they are present." And in various parts of his works, which it would be needless to quote, he alludes to its radical difference from the other powers of the mind, as if it were a point on which there could be no question. To me, however, I must confess, it appears, that this attempt to double, as it were, our various feelings, by making them not to constitute our consciousness, but to be the objects of it, as of a distinct intellectual power, is not a faithful statement of the phenomena of the mind, but is founded, partly on a confusion of thought, and still

more on a confusion of language. Sensation is not the object of consciousness different from itself, but a particular sensation is the consciousness of the moment; as a particular hope, or fear, or grief, or resentment, or simple remembrance, may be the actual consciousness of the next moment. In short, if the mind of man, and all the changes which take place in it, from the first feeling with which life commenced, to the last with which it closes, could be made visible to any other thinking being, a certain series of feelings alone, that is to say, a certain number of successive states of the mind, would be distinguishable in it, forming, indeed, a variety of sensations, and thoughts, and passions, as momentary states of the mind, but all of them existing individually, and successively to each other. To suppose the mind to exist in two different states, in the same moment, is a manifest absurdity. To the whole series of states of the mind, then, whatever the individual momentary successive states may be, I give the name of our consciousness—using that term, not to express any new state additional to the whole series, (for to that, which is already the whole, nothing can be added, and the mind, as I have already said, cannot be conceived to exist at once in two different states,) but merely as a short mode of expressing the wide variety of our feelings; in the same manner as I use any other generic word for expressing briefly the individual varieties comprehended under it. There are not sensations, thoughts, passions, and also consciousness, any more than there is quadruped or animal, as a separate being, to be added to the wolves, tigers, elephants, and other living creatures, which I include under those terms.

The fallacy of conceiving consciousness to be some-

thing different from the feeling, which is said to be its object, has arisen, in a great measure, from the use of the personal pronoun *I*, which the conviction of our identity, during the various feelings, or temporary consciousnesses of different moments, has led us to employ, as significant of our permanent self,—of that being, which is conscious, and variously conscious, and which continues, after these feelings have ceased, to be the subject of other consciousnesses, as transient as the former. *I am conscious* of a certain feeling, really means, however, no more than this—I feel in a certain manner, or, in other words, my mind exists in that state which constitutes a certain feeling; the mere existence of that feeling, and not any additional and distinguishable feeling that is to be termed consciousness, being all which is essential to the state of my mind, at the particular moment of sensation; for a pleasure, or pain, of which we are not conscious, is a pleasure or pain, that, in reference to us at least, has no existence. But when we say, *I am conscious* of a particular feeling, in the usual paraphrastic phraseology of our language, which has no mode of expressing, in a single word, the mere existence of a feeling, we are apt, from a prejudice of grammar, to separate the sentient *I* and the feeling, as different,—not different, as they really are, merely in this respect, that the feeling is one momentary and changeable state of the permanent substance *I*, that is capable of existing also, at other moments, in other states,—but so radically different, as to justify our classing the feeling in the relation of an object, to that sentient principle which we call *I*,—and an object to it, not in retrospect only, as when the feeling is remembered, or when it is viewed in relation to other remembered feelings,—but in the very moment of the primary

sensation itself; as if there could truly be two distinct states of the same mind, at that same moment, one of which states is to be termed sensation, and the other different state of the same mind to be termed consciousness.

To estimate more accurately the effect which this reference to self produces, let us imagine a human being to be born with his faculties perfect as in mature life, and let us suppose a sensation to arise for the first time in his mind. For the sake of greater simplicity, let us suppose the sensation to be of a kind as little complex as possible; such, for example, as that which the fragrance of a rose excites. If, immediately after this first sensation, we imagine the sentient principle to be extinguished, what are we to call that feeling which filled and constituted the brief moment of life? It was a simple sensation, and nothing more; and if only we say, that the sensation has existed,—whether we say, or do not say, that the mind was conscious of the sensation,—we shall convey precisely the same meaning; the consciousness of the sensation being, in that case, only a tautological expression of the sensation itself. There will be, in this first momentary state, no separation of self and the sensation,—no little proposition formed in the mind, *I feel* or *I am conscious of a feeling*,—but the feeling, and the sentient I, will, for the moment, be the same. It is this simple feeling, and this alone, which is the whole consciousness of the first moment; and no reference can be made of this to a self, which is independent of the temporary consciousness; because the knowledge of self, as distinct from the particular feeling, implies the remembrance of former feelings,—of feelings which, together with the present, we ascribe to one thinking principle; recognising the

principle, the self, the *me*, as the same, amid all its transient diversities of consciousness.

Let us now, then, instead of supposing life, as in the former case, to be extinguished immediately after the first sensation, suppose another sensation to be excited, as, for instance, that which is produced by the sound of a flute. The mind either will be completely absorbed in this new sensation, without any subsequent remembrance,—in which case the consciousness of the sensation, as in the case of the fragrance that preceded it, will be only another more paraphrastic expression of the simple sensation,—or the remembrance of the former feeling will arise. If the remembrance of the former feeling arise, and the two different feelings be considered by the mind at once, it will now, by that irresistible law of our nature, which impresses us with the conviction of our identity, conceive the two sensations, which it recognises as different in themselves, to have yet belonged to the same being,—that being, to which, when it has the use of language, it gives the name of self, and in relation to which it speaks, as often as it uses the pronoun *I*.—The notion of self, as the lasting subject of successive transient feelings, being now, and not till now, acquired, through the remembrance of former sensations or temporary diversities of consciousness, the mind will often again, when other new sensations may have arisen, go through a similar process, being not merely affected with the particular momentary sensation, but remembering other prior feelings, and identifying it with them, in the general designation of self. In these circumstances, the memory of the past will often mingle with and modify the present; and, now, indeed, to form the

verbal proposition, *I am conscious of a particular sensation*,—since the very word *I* implies that this remembrance and identification has taken place,—may be allowed to express something more than the mere existence of the momentary sensation, for it expresses also that the mind, which now exists in the state of this particular sensation, has formerly existed in a different state. There is a remembrance of former feelings, and a belief that the present and the past have been states of one substance. But this belief, or, in other words, this remembrance of former feelings, is so far from being essential to every thought or sensation, that innumerable feelings every moment arise, without any such identification with the past. They are felt, however, for this is necessarily implied in their existence; but they exist, as transient thoughts or sensations only, and the consciousness, which we have of them, in these circumstances, is nothing more than the thoughts or sensations themselves, which could not be thoughts or sensations if they were not felt.

In the greater number of our successions of momentary feelings, then, when no reference is made to former states of the mind, the consciousness is obviously nothing more than the simple momentary feeling itself as it begins and ceases; and when there is a reference to former states of the mind, we discover on analysis only a remembrance, like all our other remembrances, and a feeling of common relation of the past and the present affection of the mind to one permanent subject. It is the belief of our continued identity which involves this particular feeling of relation of past and present feelings: and consciousness, in this sense of the term, is only a word expressive of that belief.

That the fragrance of a rose, the sound of a flute, and in general all the other objects of sense, might have excited precisely the same immediate sensations as at present, Dr. Reid admits, though the belief of our personal identity had not been impressed upon us; for he ascribes this belief to an instinctive principle only, and acknowledges, that there is nothing in our sensations themselves, from which any such inference could be drawn by reason. If, then, this instinctive belief of identity had not been, as at present, a natural law of human thought, operating irresistibly on the remembrance of our different feelings, we should have had no notion of *self*, of *me*, the sentient and thinking being, who exists at the present moment, and who existed before the present moment:—and what, then, would have been the consciousness, accompanying, and different from, our sensations, when they merely flashed along the mind and vanished? The most zealous defender of consciousness, as a separate intellectual power, must surely admit, that, in such circumstances, it would have been nothing more than sensation itself. It is the belief of our identity only, which gives us the notion of self, as the subject of various feelings, and it is the notion of self, as the subject of various former feelings, which leads us to regard the consciousness of the moment, as different from the sensation of the moment; because it suggests to us those former feelings, which truly were different from it, or at least that subject *mind*, which unquestionably existed before the present sensation.

If it be said, that the faculty of consciousness is nothing more than this reference to the past, and consequent belief of identity, we may in that case very safely admit its existence; though the classification of

it, as a peculiar intellectual power, would in that case be a most singular anomaly in arrangement, and would involve a very absurd, or at least a very awkward use of a term. To assert this signification of it, however, would be to admit every thing for which I have contended. But it certainly is not the sense which has been attached to it by philosophers; and indeed, in this sense, consciousness, instead of having for its objects, as Dr. Reid says, all "our present pains, our pleasures, our hopes, our fears, our desires, our doubts, our thoughts of every kind; in a word, all the passions, and all the actions and operations of our own minds, while they are present," would be limited to the comparatively few, of which the consideration of our personal identity forms a part. In far the greater number of our feelings, as I have already said, the sensation dies away, almost in the moment, — not, indeed, without being enjoyed or suffered, but without any reference to self, as the subject of various feelings, or remembrance of any prior state of mind, as distinct from the present. The belief of our identity is surely not the only belief that arises from an instinctive principle; and if its existence entitle us, in our systematic arrangements, to the possession of a new intellectual power, every other belief that arises instinctively from a principle of our constitution, must give us a similar title to enlarge the catalogue of our faculties. The never-failing and instant faith, by which we expect, without the slightest doubt of the similarity of the future, that events will continue to follow each other, in the same order as at present, — that bodies will fall to the ground, fire burn, food satisfy the craving of our appetite — that immediate intuitive principle of belief, on which all our foresight depends, and according to which we regulate our whole

conduct in providing for the future,—should certainly, in that case, be ascribed by us to some peculiar intellectual power, for which it would be easy to invent a name. It is not by any inference of our reason we believe that the sound of a flute which preceded the fragrance of a rose, and the fragrance of a rose which followed the sound of a flute, excited sensations that were states of the same identical mind; for there is nothing, in either of the separate sensations, or in both together, from which such an inference can be drawn; and yet, notwithstanding the impossibility of inferring it, we believe this at least as strongly as we believe any of the conclusions of our reasoning. In like manner, it is not by any inference of reason we believe, that fire will warm us to-morrow, as it has warmed us to day; for there is nothing, in the fire of to-day, or in the sensation of warmth, considered as a mere sequence of it, from which the succession of a similar sensation to the fire of to-morrow can be inferred; yet we also rely on this future sequence, at least as strongly, as we believe any of the conclusions of our reasoning. In both cases the parallel is complete; and, in both, the evidence of a particular intellectual faculty must consequently be alike,—or in neither is there sufficient evidence of such a power.

There is, indeed, one other sense, in which we often talk of our consciousness of a feeling, and a sense in which it must be allowed that the consciousness is not precisely the same as the feeling itself. This is, when we speak of a feeling, not actually existing at present, but past—as when we say, that we are conscious of having seen, or heard, or done something. Such a use of the term, however, is pardonable only in the privileged looseness and inaccuracy of familiar conversation; the conscious-

ness, in this case, being precisely synonymous with remembrance or memory, and not a power different from the remembrance. The remembrance of the feeling, and the vivid feeling itself, indeed, are different. But the remembrance, and the consciousness of the remembrance, are the same—as the consciousness of a sensation, and the sensation, are the same; and to be conscious that we have seen or spoken to any one, is only to remember that we have seen or spoken to him.

Much of this very confusion with respect to memory, however, I have no doubt, has been always involved in the assertion of consciousness as a peculiar and distinct power of the mind. When we think of feelings long past, it is impossible for us not to be aware that our mind is then truly retrospective; and memory seems to us sufficient to account for the whole. But when the retrospect is of very recent feelings—of feelings, perhaps, that existed as distinct states of the mind, the very moment before our retrospect began, the short interval is forgotten, and we think that the primary feeling, and our consideration of the feeling, are strictly simultaneous. We have a sensation,—we look instantly back on that sensation;—such is consciousness as distinguished from the feeling that is said to be its object. When it is any thing more than the sensation, thought, or emotion, of which we are said to be conscious, it is a brief and rapid retrospect. Its object is not a present feeling, but a past feeling, as truly as when we look back, not on the moment immediately preceding, but on some distant event or emotion of our boyhood.

After thus distinguishing all that is truly present in consciousness, from common remembrance, I surely need not undertake, at any length, to distinguish it

from that peculiar species of remembrance which goes under the name of conscience; though their similar etymology may have a slight tendency to mislead. Conscience is our moral memory;—it is the memory of the heart, if I may apply to it a phrase which, in its original application, was much more happily employed, by one of the deaf and dumb pupils of the Abbé Sicard, who, on being asked what he understood by the word gratitude, wrote down immediately, “Gratitude is the memory of the heart.”

The power of conscience does, indeed, what consciousness does not. It truly doubles all our feelings, when they have been such as virtue inspired. “*Hoc est vivere bis, vita posse priore frui;*” and it multiplies them in a much more fearful proportion, when they have been of an opposite kind,—arresting, as it were, every moment of guilt, which, of itself, would have passed away, as fugitive as our other moments, and suspending them for ever before our eyes, in fixed and terrifying reality. “*Prima et maxima peccantium est pœna,*” says Seneca, “*peccasse; nec ullum scelus, licet illud fortuna exornet muneribus suis, licet tueatur ac vindicet, impunitum est, quoniam sceleris in scelere supplicium est.*”¹ “The first and the greatest punishment of guilt, is to have been guilty; nor can any crime, though fortune should adorn it with all her most lavish bounty, as if protecting and vindicating it, pass truly unpunished; because the punishment of the base or atrocious deed, is in the very baseness or atrocity of the deed itself.” But this species of memory, which we denominate conscience, and, indeed, every species of memory, which must necessarily have for its object the past, is essentially different

¹ Epist. 97.

from the consciousness which we have been considering, that, in its very definition, is limited to present feelings, and of which, if we really had such an intellectual power, our moral conscience would, in Dr. Reid's sense of the term, be an object rather than a part.

Consciousness, then, I conclude, in its simplest acceptation, when it is understood as regarding the present only, is no distinct power of the mind, or name of a distinct class of feelings, but is only a general term for all our feelings, of whatever species these may be,—sensations, thoughts, desires; in short, all those states or affections of mind, in which the phenomena of mind consist; and when it expresses more than this, it is only the remembrance of some former state of the mind, and a feeling of the relation of the past and the present as states of one sentient substance. The term is very conveniently used for the purpose of abbreviation, when we speak of the whole variety of our feelings, in the same manner as any other general term is used, to express briefly the multitude of individuals that agree in possessing some common property of which we speak; when the enumeration of these, by description and name, would be as wearisome to the patience, as it would be oppressive to the memory. But still, when we speak of the evidence of consciousness, we mean nothing more than the evidence implied in the mere existence of our sensations, thoughts, desires,—which it is utterly impossible for us to believe to be and not to be; or, in other words, impossible for us to feel and not to feel at the same moment. This precise limitation of the term, I trust, you will keep constantly in mind in the course of our future speculations.

LECTURE XII.

On Consciousness, continued : — On Mental Identity. — Identity irreconcilable with Materialism. — Difference between Personal and Mental Identity. — Objections to Mental Identity.

IN my last Lecture, Gentlemen, I brought to a conclusion my remarks on the nature and objects of physical inquiry, — the clear understanding of which seemed to me essentially necessary before we could enter, with any prospect of success, on the physiological investigation of the mind.

We then opened our eyes, as it were, on the great field of thought and passion, and on all the infinite variety of feelings, which, in assemblages more or less complex, and in colours more or less brilliant or obscure, it is every moment presenting to our internal glance. The very attempt to arrange these transient feelings as phenomena of the mind, however, implies evidently some consideration of the nature of that varied consciousness in which they consist, and of the identity of the permanent substance, as states of which we arrange them. My last lecture, therefore, was devoted to this primary consideration of consciousness, which we found reason to regard, not as any separate and peculiar faculty of the mind, of which our various feelings are, to use Dr. Reid's expression, objects, and which is therefore to be added, in every instance, to the separate pleasures, pains, perceptions, remembrances, passions, that constitute the momentary states of the mind, but merely as a short general term, expressive of all these momentary states, in reference to the permanent subject mind. The sensation of fra-

grance, for example, is the consciousness of one moment, as the remembrance of that sensation, or some other sensation, is, perhaps, the consciousness of the succeeding moment: the mind, at every moment, existing in one precise state, which, as one state, can be accurately denoted only by one precise name, or by names that are synonymous, not by names that are significant of total diversity.

All which we know, or can be supposed to know, of the mind, indeed, is a certain series of these states or feelings that have succeeded each other, more or less rapidly, since life began; the sensation, thought, emotion, of the moment, being one of those states, and the supposed consciousness of the state being only the state itself, whatever it may be, in which the mind exists at that particular moment: since it would be manifestly absurd to suppose the same indivisible mind to exist at the very same moment in two separate states, one of sensation, and one of consciousness. It is not simply because we feel, but because we remember some prior feeling, and have formed a notion of the mind, as the permanent subject of different feelings, that we conceive the proposition, "I am conscious of a sensation," to express more than the simple existence of the sensation itself; since it expresses, too, a reference of this to the same mind which had formerly been recognised as the subject of other feelings. There is a remembrance of some former feeling, and a reference of the present feeling to the same subject; and this mere remembrance, and the intuitive belief of identity which accompanies remembrance, are all that philosophers, by defective analyses, and a little confusion of language and thought, have asserted to be the result of a peculiar mental faculty, under the name of consciousness; — though

consciousness, in this sense, far from embracing all the varieties of feeling, that, in the greater number of instances, begin and cease, without any accompanying thought of that permanent substance to which the transient feeling is referable, must be limited to the comparatively few in which such a reference to self is made.

Consciousness, in short, whenever it is conceived to express more than the present feeling, or present momentary state of the mind, whatever that may be, which is said to be the object of consciousness,—as if it were at once something different at every moment from the present state or feeling of the mind, and yet the very state in which the mind is at every moment supposed to exist,—is a retrospect of some past feeling, with that belief of a common relation of the past and present feeling to one subject mind, which is involved in the very notion, or rather constitutes the very notion, of personal identity,—and all which distinguishes this rapid retrospect from any of the other retrospects, which we class as remembrances, and ascribe to memory as their source, is the mere briefness of the interval between the feeling that is remembered, and the reflective glance which seems to be immediately retrospective. A feeling of some kind has arisen, and we look instantly back upon that feeling; but a remembrance is surely still the same in nature, and arises from the same principle of the mental constitution, whether the interval which precedes it be that of a moment, or of many hours, or years.

I now then proceed, after these remarks on our consciousness as momentary, to a most important inquiry, which arises necessarily from the consideration of the successions of our momentary consciousness,

and must be considered as involved in all our attempts to arrange them,—the inquiry into the identity of the mind, as truly one and permanent amid all the variety of its fugitive affections.

In our examination of this very wonderful coincidence of sameness and diversity, I shall confine my remarks to the phenomena which are purely mental, omitting the objections drawn from the daily waste and daily aliment of our corporeal part, the whole force of which objection may be admitted, without any scruple, by those who contend for the identity only of the thinking principle; since the individuality of this would be as little destroyed, though every particle of the body were completely changed, as the individuality of the body itself would be destroyed, by a change of the mere garments that invest it. The manner in which the mind is united to a system of particles, which are in a perpetual state of flux, is, indeed, more than we can ever hope to be able to explain; though it is really not more inexplicable than its union to such a system of particles would be, though they were to continue for ever unchanged.

I may remark, however, by the way, that though the constant state of flux of the corporeal particles furnishes no argument against the identity of the principle which feels and thinks, if feeling and thought be states of a substance that is essentially distinct from these changing particles, the unity and identity of this principle, amid all the corpusecular changes,—if it can truly be proved to be identical,—furnish a very strong argument in disproof of those systems which consider thought and feeling as the result of material organization. Indeed, the attempts which have been seriously made by materialists to obviate this difficulty, involve, in every respect, as much

absurdity, though certainly not so much pleasantry, at least so much intentional pleasantry, as the demonstrations which the Society of Freethinkers communicated to Martinus Scriblerus, in their letter of greeting and invitation. The arguments, which they are represented as urging in this admirable letter, ludicrous as they may seem, are truly as strong, at least, as those of which they are a parody; and indeed, in this case, where both are so like, a very little occasional change of expression is all which is necessary to convert the grave ratiocination into the parody, and the parody into the grave ratiocination.

“The parts (say they) of an animal body,” stating the objection which they profess to answer, “are perpetually changed, and the fluids which seem to be the subject of consciousness, are in a perpetual circulation, so that the same individual particles do not remain in the brain; from whence it will follow, that the idea of individual consciousness must be constantly translated from one particle of matter to another, whereby the particle A, for example, must not only be conscious, but conscious that it is the same being with the particle B that went before.

“We answer; this is only a fallacy of the imagination, and is to be understood in no other sense than that maxim of the English law, that the king never dies. This power of thinking, self-moving, and governing the whole machine, is communicated from every particle to its immediate successor, who, as soon as he is gone, immediately takes upon him the government, which still preserves the unity of the whole system.

“They make a great noise about this individuality, —how a man is conscious to himself that he is the same individual he was twenty years ago, notwith-

standing the flux state of the particles of matter that compose his body. We think this is capable of a very plain answer, and may be easily illustrated by a familiar example :

“Sir John Cutler had a pair of black worsted stockings, which his maid darned so often with silk, that they became at last a pair of silk stockings. Now, supposing those stockings of Sir John’s ended with some degree of consciousness at every particular darning, they would have been sensible, that they were the same individual pair of stockings both before and after the darning ; and this sensation would have continued in them through all the succession of darnings ; and yet, after the last of all, there was not perhaps one thread left of the first pair of stockings : but they were grown to be silk stockings, as was said before.

“And whereas it is affirmed, that every animal is conscious of some individual self-moving, self-determining principle ; it is answered, that, as in a House of Commons all things are determined by a majority, so it is in every animal system. As that which determines the house is said to be the reason of the whole assembly ; it is no otherwise with thinking beings, who are determined by the greater force of several particles, which, like so many unthinking members, compose one thinking system.”¹

The identity, which we are to consider, is, as I have already said, the identity only of the principle which feels and thinks, without regard to the changeable state of the particles of the brain, or of the body in general. This unity and permanence of the principle which thinks, if we had still to invent a phrase,

¹ Mart. Scrib. chap. vii.—Pope’s Works, ed. 1757, vol. vii. pp. 82–84.

I would rather call mental identity, than personal identity, though the latter phrase may now be considered as almost fixed by the general use of philosophers. On no system can there be this absolute identity, unless as strictly mental; for, if we adopt the system of materialism, we must reject the absolute lasting identity of the thinking principle altogether; and if we do not adopt that system, it is in the mind alone that we must conceive the identity to subsist. The person, in the common and familiar meaning of the term, though involving the mind, is yet more than the mere mind; and, by those, at least, who are not conversant with the writings of philosophers on the subject, sameness of person would be understood as not mental only, but as combining, with the absolute identity of the mind, some sort of identity of the body also; though, it must be confessed, that, in its application to the body, the term identity is not used with the same strictness as in its application to the mind; the bodily identity being not absolute, but admitting of considerable, and ultimately perhaps even of total, change, provided only the change be so gradual as not to be inconsistent with apparent continuity of existence. Still, however, identity of person, at least in the popular notion of it, is something more than identity of mind.

"All mankind," says Dr. Reid, "place their personality in something that cannot be divided or consist of parts. A part of a person is a manifest absurdity.

"When a man loses his estate, his health, his strength, he is still the same person, and has lost nothing of his personality. If he has a leg or an arm cut off, he is the same person he was before. The amputated member is no part of his person,

otherwise it would have a right to a part of his estate, and be liable for a part of his engagements ; it would be entitled to a share of his merit and demerit, which is manifestly absurd. A person is something indivisible, and is what Leibnitz calls a monad.”¹

That all mankind place their personality in something, which cannot be divided into two persons, or into halves or quarters of a person, is true ; because the mind itself is indivisible, and the presence of this one indivisible mind is essential to personality. But though essential to personality in man, mind is not all, in the popular sense of the word at least, which this comprehends. Thus, if, according to the system of metempsychosis, we were to suppose the mind, which animates any of our friends, to be the same mind which animated Homer or Plato,—though we should have no scruple, in asserting the identity of the mind itself, in this corporeal transmigration,—there is no one, I conceive, who would think himself justifiable, in point of accuracy, in saying of Plato and his friend, that they were as exactly, in every respect, the same person, as if no metempsychosis whatever had intervened. It does not follow from this, as Dr. Reid very strangely supposes, that a leg or arm, if it had any relation to our personality, would, after amputation, be liable to a part of our engagements, or be entitled to a share of our merit or demerit ; for the engagement, and the moral merit or demerit, belong not to the body, but to the mind, which we believe to continue precisely the same, after the amputation, as before it. This, however, is a question merely as to the comparative propriety of a term, and as such, therefore, it is unnecessary to dwell upon it. It is of much more im-

¹ Essays on the Intellectual Powers ; Essay III. chap. iv.—vol. i. p. 341. Ed. 1808.

portance to proceed to the consideration of the actual identity of the mind, whether we term it simply mental or personal identity.

"That there is something undoubtedly which thinks," says Lord Shaftesbury, "our very doubt itself and scrupulous thought evinces. But in what subject that thought resides, and how that subject is continued one and the same, so as to answer constantly to the supposed train of thoughts or reflections, which seem to run so harmoniously through a long course of life, with the same relation still to one single and self-same person, this is not a matter so easily or hastily decided by those who are nice self-examiners, or searchers after truth and certainty.

"'Twill not, in this respect, be sufficient for us to use the seeming logic of a famous¹ modern, and say, 'We think; therefore we are.' Which is a notably invented saying, after the model of that like philosophical proposition, that 'What is, is.' Miraculously argued! If 'I am, I am.' Nothing more certain! For the *ego*, or I, being established in the first part of the proposition, the *ergo*, no doubt, must hold it good in the latter. But the question is, 'What constitutes the We or I?' And, 'Whether the I of this instant be the same with that of any instant preceding, or to come?' For we have nothing but memory to warrant us, and memory may be false. We may believe we have thought and reflected thus or thus; but we may be mistaken. We may be conscious of that, as truth, which perhaps was no more than a dream; and we may be conscious of that as a past dream, which perhaps was never before so much as dreamt of.

"This is what metaphysicians mean, when they say, 'That identity can be proved only by consciousness;

¹ Monsieur Des Cartes. *Shaftesbury*.

but that consciousness withal may be as well false as real, in respect of what is past.' So that the same successional We or I, must remain still, on this account, undecided.

"To the force of this reasoning I confess I must so far submit, as to declare that, for my own part, I take my being upon trust. Let others philosophize as they are able; I shall admire their strength, when, upon this topic, they have refuted what able metaphysicians object, and Pyrrhonists plead in their own behalf.

"Meanwhile, there is no impediment, hinderance, or suspension of action, on account of these wonderfully refined speculations. Argument and debate go on still. Conduct is settled. Rules and measures are given out, and received. Nor do we scruple to act as resolutely upon the mere supposition that we are, as if we had effectually proved it a thousand times, to the full satisfaction of our metaphysical or Pyrrhonian antagonist."¹

In stating the objections that may be urged against our mental identity, by such metaphysical or Pyrrhonian antagonists, as those of whom Lord Shaftesbury speaks, I shall endeavour to exhibit the argument in as strong a light as possible, and in a manner that appears to me, in some measure, new. It is surely unnecessary for me to warn you, that the argument, however specious, is a sophistical one; and the nature of the peculiar sophistry which it involves shall be afterwards pointed out to you. But I conceive it to be most important, in teaching you to reflect for yourselves,—by far the most important lesson which you can be taught,—that you should be accustomed to consider the force of objections that may be urged,

¹ Shaftesbury's *Characteristics*, vol. iii. pp. 172-174. Edit. 1745.

as clearly as the force of that surer evidence which they oppose, — and that even sophistry itself, when it is to be exhibited and confuted, should, therefore, always be exhibited fairly. We pay truth a very easy homage, when we content ourselves with despising her adversaries. The duty which we owe to her is of a more manly kind. It is to gird ourselves for the battle, — to fit us for overcoming those adversaries, whenever they shall dare to present themselves in array; and this we cannot do, with absolute confidence, unless we know well the sort of arms which they may use, strong or feeble as those arms may be. I can have no fear that any argument of this kind, in whatever manner it may be stated, can have the slightest influence on your conviction; because it is directly opposed by a principle of our nature, which is paramount to all reasoning. We believe our identity, as one mind, in our feelings of to-day, and our feelings of yesterday, as indubitably as we believe that the fire, which burned us yesterday, would, in the same circumstances, burn us to-day, — not from reasoning, but from a principle of instant and irresistible belief, such as gives to reasoning itself all its validity. As Lord Shaftesbury justly says, “We act as resolutely, upon the mere supposition that we are, as if we had effectually proved it a thousand times.”

To identity, it may be said, it is necessary that the qualities be the same. That of which the qualities are different cannot be the same; and the only mode of discovering whether a substance have the same or different qualities, is to observe how it affects and is affected by other substances. It is recognised by us as the same, or, at least, as perfectly similar, when in two corresponding series of changes, the same substances affect it in the same manner, and it affects, in

the same manner, the same substances ; and when either the same substances do not affect it in the same manner, or it does not affect, in the same manner, the same substances, we have no hesitation in considering it as different. Thus, if a white substance, resembling exactly, in every external appearance, a lump of sugar, do not melt when exposed to the action of boiling water, we do not regard it as sugar, because the water does not act on it as we have uniformly known it to act on that substance ; or if the same white lump, in every other respect resembling sugar, affect our taste as bitter or acrid rather than sweet, we immediately, in like manner, cease to consider it as sugar, because it does not act upon our nerves of taste in the same manner as sugar acts upon them. The complete similarity, in other respects, is far from sufficient to make us alter our judgment ; a single circumstance of manifest difference, in its mode either of acting upon other substances, or of being acted upon by them, being sufficient to destroy the effect of a thousand manifest resemblances.

Let this test of identity, then, it may be said, be applied to the mind, at different periods, if the test be allowed to be a just one ; and let it be seen whether, in the series of changes in which it acts or is acted upon, the phenomena precisely correspond in every case. If the same objects do not act upon it in the same manner, it must then be different, according to the very definition to which we are supposed to have assented. You, of course, understand that I am at present only assuming the character of an objector, and that I state an argument, the principle of which you will afterwards find to be false.

When we compare the listless inactivity of the infant, slumbering, from the moment at which he

takes his milky food, to the moment at which he awakes to require it again, with the restless energies of that mighty being which he is to become in his maturer years, pouring truth after truth in rapid and dazzling profusion upon the world, or grasping in his single hand the destiny of empires, how few are the circumstances of resemblance which we can trace of all that intelligence which is afterwards to be displayed ; how little more is seen than what serves to give feeble motion to the mere machinery of life. What prophetic eye can venture to look beyond the period of distinct utterance, and discern that variety of character by which even boyhood is marked, far less the intellectual and moral growth of the years that follow — the genius, before whose quick glance the errors and prejudices, which all the ages and nations of mankind have received as truths, are to disappear—the political wisdom with which, in his calm and silent meditations, he is to afford more security to his country than could be given to it by a thousand armies, and which, with a single thought, is to spread protection and happiness to the most distant lands—or that ferocious ambition, with which, in unfortunate circumstances of power, he is perhaps to burst the whole frame of civil society, and to stamp, through every age, the deep and dark impression of his existence, in the same manner as he leaves on the earth which he has desolated the track of his sanguinary footsteps. The cradle has its equality almost as the grave. Talents, imbecilities, virtues, vices, slumber in it together, undistinguished ; and it is well that it is so, since, to those who are most interested in the preservation of a life that would be helpless but for their aid, it leaves those delightful illusions which more than repay their anxiety and fatigue, and allows

them to hope, for a single being, every thing which it is possible for the race of man to become. If clearer presages of the future mind were then discoverable, how large a portion of human happiness would be destroyed by this single circumstance! What pleasure could the mother feel, in her most delightful of offices, if she knew that she was nursing into strength, powers which were to be exerted for the misery of that great or narrow circle in which they were destined to move, and which to her were to be a source, not of blessing, but of grief, and shame, and despair!

These shall the fury passions tear,
The vultures of the mind,

says Gray, on thinking of a group of happy children ;

For see, how all around them wait,
The ministers of human fate,
And black misfortune's baleful train ;
Ah ! show them, where in ambush stand,
To seize their prey, the murd'rous band !
Ah ! tell them they are men !¹

To tell them they are men, though they were capable of understanding it, even in this sense of the word, would not communicate information so melancholy or so astonishing to themselves, as, by breaking too soon that dream of expectation, which is not to last for ever, but which fulfils the benevolent purpose of nature while it lasts, it would communicate to the parent who watches over them, and who sees in them only those pure virtues, and that happiness as pure, which are perhaps more than the nature of man admits, and which, at least in the case before her, are never to be realized.

Is the mind, then, in infancy and in mature life,

¹ Ode III.

precisely the same, when in the one case so many prominent diversities of character force themselves upon the view, and, in the other case, so little appears to distinguish the future ornament of mankind from him who is afterwards—

To eat his glutton meal with greedy haste,
Nor know the hand which feeds him ?¹

If we apply the test of identity, do we find that the same objects, in these different periods, act upon the mind in exactly the same manner; and are its own feelings, in the successive trains, intellectual and moral, of which they form a part, attended with consequents exactly the same?

Every age,—if we may speak of many ages in the few years of human life,—seems to be marked with a distinct character. Each has its peculiar objects, that excite lively affections; and in each, exertion is excited by affections, which, in other periods, terminate without inducing active desire. The boy finds a world in less space than that which bounds his visible horizon; he wanders over his range of field, and exhausts his strength in pursuit of objects, which, in the years that follow, are seen only to be neglected; while, to him, the objects that are afterwards to absorb his whole soul, are as indifferent as the objects of his present passions are destined then to appear.

In the progress of life, though we are often gratified with the prospect of benevolence increasing as its objects increase, and of powers rising over the greatness of their past attainments, this gratification is not always ours. Not slight changes of character only appear, which require our attentive investigation to trace them, but, in innumerable cases, complete and striking contrasts press, of themselves, upon our view

¹ Miss Baillie's *Plays on the Passions*.

How many melancholy opportunities must every one have had of witnessing the progress of intellectual decay, and the coldness that steals upon the once benevolent heart! We quit our country, perhaps, at an early period of life, and, after an absence of many years, we return, with all the remembrances of past pleasure, which grow more tender as we approach their objects. We eagerly seek him, to whose paternal voice we have been accustomed to listen, with the same reverence as if its predictions had possessed oracular certainty,—who first led us into knowledge, and whose image has been constantly joined, in our mind, with all that veneration which does not forbid love. We find him sunk, perhaps, in the imbecility of idiotism, unable to recognise us—ignorant alike of the past and of the future, and living only in the sensibility of animal gratification. We seek the favourite companion of our childhood, whose gentleness of heart we have often witnessed, when we have wept together over the same ballad, or in the thousand little incidents that called forth our mutual compassion, in those years when compassion requires so little to call it forth. We find him hardened into man, meeting us scarcely with the cold hypocrisy of dissembled friendship—in his general relations to the world, careless of the misery which he is not to feel—and, if he ever think of the happiness of others, seeking it as an instrument, not as an end. When we thus observe all that made us one, and gave an heroic interest even to our childish adventures, absorbed in the chiliness of selfish enjoyment, do we truly recognise in him the same unaltered friend, from whom we were accustomed to regret our separation, and do we use only a metaphor of little meaning, when we say of him, that he is become a different person, and that

his mind and character are changed? In what does the identity consist? The same objects no longer act upon him in the same manner; the same views of things are no longer followed by similar approbation or disapprobation, grief, joy, admiration, disgust; and if we affirm that substance to be, in the strictest sense of identity, the same on which, in two corresponding series of phenomena, the same objects act differently, while itself also acts differently on the same objects; in short, in which the antecedents being the same, the consequents are different, and the consequents being the same, the antecedents are different,—what definition of absolute diversity can we give, with which this affirmation of absolute identity may not be equally consistent :

Behold the child, by Nature's kindly law,
 Pleased with a rattle, tickled with a straw :
 Some livelier plaything gives his youth delight,
 A little louder, but as empty quite ;
 Scarfs, garters, gold, amuse his riper stage ;
 And beads and prayer-books are the toys of age.
 Pleased with his bauble still, as that before ;
 Till, tired, he sleeps,—and life's poor play is o'er.¹

The supposed test of identity, when applied to the mind in these cases, completely fails. It neither affects, nor is affected, in the same manner, in the same circumstances. It, therefore, if the test be a just one, is not the same identical mind.

This argument against the identity of the mind, drawn from the occasional striking contrasts of character in the same individual at different periods of life, or when, by great changes of fortune, he may have been placed suddenly in circumstances remarkably

¹ Pope's *Essay on Man*, Ep. II. 275–282.

different, must, in some degree, have forced itself upon every one who has been at all accustomed to reflect; and yet, in no one instance, I may safely say, can it have produced conviction even for a moment. I have stated it to you, without attempting to lessen its force by any allusion to the fallacy on which it is founded; because the nature of this fallacy is afterwards to be fully considered by us.

There is another argument that may be urged against the identity of the sentient and thinking principle, which has at least equal semblance of force, though it does not occur so readily, because it does not proceed on those general and lasting changes of character with which every one must be struck, but on the passing phenomena of the moment, which are not inconsistent with a continuance of the same general character, and which, as common to all mankind, and forming, indeed, the whole customary and familiar series of our thoughts and emotions, excite no astonishment when we look back on them in the order of their succession.

The mere diversity of our feelings at different moments, it may be said, is of itself incompatible with the strict and absolute unity which is supposed to belong to the thinking principle. If joy and sorrow, such as every one has felt, be different, that which is joyful, and that which is sorrowful, cannot be precisely the same. On the supposition of complete unity and permanence of the thinking principle, nothing is added to it, nothing is taken away from it; and, as it has no parts, no internal change of elementary composition can take place in it. But that to which nothing is added, from which nothing is taken away, and which has no parts to vary their own relative positions and affinities, is so strictly the

same, it may be said, that it would surely be absurd to predicate of it any diversity whatever. Joy and sorrow imply an unquestionable diversity of some kind; and if this diversity cannot be predicated of that substance which is precisely the same, without addition, subtraction, or any internal change of composition whatever, that which is joyful, and that which is sorrowful, cannot have absolute identity; or if we affirm, that a diversity, so striking as to form an absolute contrast, is yet not inconsistent with complete and permanent unity and identity, we may, in like manner, affirm, that a substance which is hard, heavy, blue, transparent,—which unites with acids, not with alkalies,—and which is volatilizable at a low temperature,—is precisely the same substance as that which is soft, light, green, opaque,—which unites with alkalies, not with acids,—and which is absolutely infusible and fixed in the highest temperature to which we can expose it.

I have thus endeavoured to place, in the strongest possible light, the most imposing arguments which I can conceive to be urged against the permanent identity of the sentient and thinking principle, that, in combating even sophistry itself, you may learn, as I have said, to combat with it on equal ground, and assume no advantage but that irresistible advantage which truth must always afford to him who is the combatant of error.

The positive evidence of the identity of the mind, I shall proceed to consider in my next lecture.

LECTURE XIII.

On the Positive and Negative Evidence of Mental Identity.

My last Lecture, Gentlemen, was employed in considering the great question of the identity of the mind, as one and permanent, amid all the infinite variety of our feelings; and particularly, in stating the two most forcible objections which I can imagine to be urged against this identity; one founded on the striking contrasts, intellectual and moral, which the same mind exhibits in different periods of life, and in different circumstances of fortune,—the other, more abstract, and, therefore, less obvious, but not less forcible, founded on the mere diversity of our temporary feelings as itself inconsistent with identity, at least with that strict and absolute identity to which, as in the case of the mind, nothing can have been added,—from which nothing can have been taken away,—and which, by its very nature, as simple and indivisible, must have been incapable of any elementary change.

Since the exposure of the fallacy, on which these objections are founded, would, however, afford only a sort of negative evidence of that great truth which they oppose, it will be of advantage, before entering on an examination of the objections themselves, to state, in the first place, the nature of that positive evidence, which does not, indeed, lead us to the belief of the unity and permanence of our spiritual being, by that slow process which is denominated reasoning, but constitutes to us, primarily and directly, an impossibility of disbelieving it. I do this the more readily,

But that they are thus essential, a very little attention will be sufficient to show you.

All belief, it is evident, must be either direct or indirect. It is direct, when a proposition, without regard to any former proposition expressed or understood, is admitted as soon as it is expressed in words, or as soon as it rises silently in the mind. Such are all the order of truths which have been denominated, on this account, first truths. The belief is indirect, when the force of the proposition, to which assent is given, is admitted only in consequence of the previous admission of some former proposition, with which it is felt to be intimately connected; and the statement in words, or the internal development of these relative propositions, in the order in which their relation to the primary proposition is felt, is all that constitutes reasoning. The indirect belief which attends the result of reasoning, even in the proudest demonstration, is thus only another form of some first truth which was believed directly and independently of reasoning; and, without this primary intuitive assent, the demonstration itself, in all its beautiful precision and regularity, would be as powerless and futile as the most incoherent verbal wrangling.

Without some principles of immediate belief, then, it is manifest, that we could have no belief whatever; for we believe one proposition, because we discover its relation to some other proposition, which is itself, perhaps, related, in like manner, to some other proposition formerly admitted, but which, carried back as far as it may, through the longest series of ratiocination, must ultimately come to some primary proposition, which we admit from the evidence contained in itself, or, to speak more accurately, which we believe from the mere impossibility of disbelieving it.

All reasoning, then, the most sceptical, be it remarked, as well as the most dogmatical, must proceed on some principles, which are taken for granted, not because we infer them by logical deduction, for this very inference must then itself be founded on some other principle assumed without proof; but because the admission of these first principles is a necessary part of our intellectual constitution. The ridicule, therefore, with which Dr. Priestley and some other English metaphysicians, were disposed to regard the decision of philosophical questions, on certain ultimate principles of common sense, was surely, at least in its wide degree of extension, misplaced; though the phrase *common sense*, it will be admitted, was not the happiest that could have been chosen. The controversy, indeed, was truly a verbal and insignificant one, unless as far as it had reference to the unnecessary multiplication of these principles, by the philosophers of this part of the island whom Dr. Priestley opposed; since, if traced to their ultimate evidence, it could have been only from some one or more of the principles of common sense, at least from those primary universal intuitions of direct belief, which were all that Dr. Reid and his friends meant to denote by the term, that the very reasonings employed against them derived even the slightest semblance of force. An argument that rejects not the phrase common sense only, which is of little consequence, but also what the phrase was intended, by its authors, to imply, is an argument confessedly founded upon nothing; which, therefore, as wholly unfounded, requires no answer, and which, at any rate, it would be vain to attempt to answer, because the answer, if it proceed on any ground whatever, must begin with assuming what the argument rejects as inadmissible.

All reasoning, then, I repeat, whether sceptical or dogmatical, must take for granted, as its primary evidence, the truth of certain propositions, admitted intuitively, and independently of the reasoning, which follows, but cannot precede, the perception of their truth; and hence, as we cannot suppose that the subsequent ratiocination, though it may afford room for errors in the process, can at all add evidence to these primary truths, — which, as directly believed, are themselves the ultimate evidence of each successive proposition, down to the last result of the longest argument, — we must admit that our identity, if it be felt by us intuitively, and felt universally, immediately, irresistibly, is founded on the very same authority as the most exact logical demonstration, with this additional advantage, that it is not subject to those possibilities of error in the steps of the demonstration, from which no long series of reasoning can be exempt.

So little accustomed are we, however, to think of this primary fundamental evidence of every reasoning, while we give our whole attention to the consecutive propositions which derive from it their force, that we learn, in this manner, to consider truth and reasoning as necessarily connected; and to regard the assertion of truths that do not flow from reasoning, as the assertion of something which it would be equally unworthy of philosophy to assert or to admit; though every assertion and every admission, which the profoundest reasoner can make, must, as we have seen, involve the direct or indirect statement of some truth of this kind. Nor is it wonderful that we should thus think more of the reasoning itself, than of the foundation of the reasoning; since the first truths, which give force to reasoning, but require no reasoning to establish them, must necessarily be of a kind which

all admit, and which, therefore, as always believed by us, and undisputed by others, have excited no interest in discussion, and have never seemed to add to our stock of knowledge, like the results of reasoning, which have added to it truth after truth. Yet that they are thus uninteresting to us, is the effect only of their primary, and universal, and paramount force. They are the only truths, in short, which every one admits; and they seem to us unworthy of being maintained as truths, merely because they are the only truths which are so irresistible in evidence as to preclude the possibility of a denial.

It is not as the primary evidence of all our processes of reasoning, however, that they are chiefly valuable. Every action of our lives is an exemplification of some one or other of these truths, as practically felt by us. Why do we believe, that what we remember truly took place, and that the course of nature will be in future such as we have already observed it? Without the belief of these physical truths, we could not exist a day, and yet there is no reasoning from which they can be inferred.

These principles of intuitive belief, so necessary for our very existence, and too important, therefore, to be left to the casual discovery of reason, are, as it were, an internal never-ceasing voice from the Creator and Preserver of our being. The reasonings of men, admitted by some, and denied by others, have over us but a feeble power, which resembles the general frailty of man himself. These internal revelations from on high, however, are omnipotent like their Author. It is impossible for us to doubt them, because to disbelieve them would be to deny what our very constitution was formed to admit. Even the atheist himself, therefore,—if, indeed, there be

one who truly rejects a Creator and Ruler of the universe,—is thus every moment in which he adapts his conduct implicitly, and without reasoning, to these directions of the Wisdom that formed him, obeying, with most exact subserviency, that very voice which he is professing to question or to deride.

That the assertion of principles of intuitive belief, independent of reasoning, may be carried to an extravagant and ridiculous length,—as, indeed, seems to me to have been the case in the works of Dr. Reid, and some other Scottish philosophers, his contemporaries and friends,—no one can deny; nor that the unnecessary multiplication of these would be in the highest degree injurious to sound philosophy,—both as leading us to form false views of the nature of the mind, in ascribing to it principles which are no part of its constitution, and, still more, as checking the general vigour of our philosophic inquiry, by seducing us into the habit of acquiescing, too soon, in the easy and indolent faith, that it is unnecessary for us to proceed farther, as if we had already advanced as far as our faculties permit. It is the more unfortunate, because our very avidity for knowledge, which is only another name for that philosophic curiosity in which inquiry originates, is itself favourable to this too easy acquiescence; tending, consequently, by a sort of double influence, to repress the very speculation to which it gave rise. This it does, by rendering the suspense of ungratified curiosity so painful to us, as to resemble, in a very great degree, the uneasiness which we feel from the ungratified cravings of bodily appetite. We more readily, therefore, yield to the illusion which seems to remove this suspense; and are happy to think, however falsely, that we have now completed our inquiry, and that, without attempting any more

his mind and character are changed? In what does the identity consist? The same objects no longer act upon him in the same manner; the same views of things are no longer followed by similar approbation or disapprobation, grief, joy, admiration, disgust; and if we affirm that substance to be, in the strictest sense of identity, the same on which, in two corresponding series of phenomena, the same objects act differently, while itself also acts differently on the same objects; in short, in which the antecedents being the same, the consequents are different, and the consequents being the same, the antecedents are different,—what definition of absolute diversity can we give, with which this affirmation of absolute identity may not be equally consistent:

Behold the child, by Nature's kindly law,
Pleased with a rattle, tickled with a straw:
Some livelier plaything gives his youth delight,
A little louder, but as empty quite;
Scarfs, garters, gold, amuse his riper stage;
And beads and prayer-books are the toys of age.
Pleased with his bauble still, as that before;
Till, tired, he sleeps,—and life's poor play is o'er.¹

The supposed test of identity, when applied to the mind in these cases, completely fails. It neither affects, nor is affected, in the same manner, in the same circumstances. It, therefore, if the test be a just one, is not the same identical mind.

This argument against the identity of the mind, drawn from the occasional striking contrasts of character in the same individual at different periods of life, or when, by great changes of fortune, he may have been placed suddenly in circumstances remarkably

¹ Pope's *Essay on Man*, Ep. II. 275-282.

different, must, in some degree, have forced itself upon every one who has been at all accustomed to reflect ; and yet, in no one instance, I may safely say, can it have produced conviction even for a moment. I have stated it to you, without attempting to lessen its force by any allusion to the fallacy on which it is founded ; because the nature of this fallacy is afterwards to be fully considered by us.

There is another argument that may be urged against the identity of the sentient and thinking principle, which has at least equal semblance of force, though it does not occur so readily, because it does not proceed on those general and lasting changes of character with which every one must be struck, but on the passing phenomena of the moment, which are not inconsistent with a continuance of the same general character, and which, as common to all mankind, and forming, indeed, the whole customary and familiar series of our thoughts and emotions, excite no astonishment when we look back on them in the order of their succession.

The mere diversity of our feelings at different moments, it may be said, is of itself incompatible with the strict and absolute unity which is supposed to belong to the thinking principle. If joy and sorrow, such as every one has felt, be different, that which is joyful, and that which is sorrowful, cannot be precisely the same. On the supposition of complete unity and permanence of the thinking principle, nothing is added to it, nothing is taken away from it ; and, as it has no parts, no internal change of elementary composition can take place in it. But that to which nothing is added, from which nothing is taken away, and which has no parts to vary their own relative positions and affinities, is so strictly the

same, it may be said, that it would surely be absurd to predicate of it any diversity whatever. Joy and sorrow imply an unquestionable diversity of some kind; and if this diversity cannot be predicated of that substance which is precisely the same, without addition, subtraction, or any internal change of composition whatever, that which is joyful, and that which is sorrowful, cannot have absolute identity; or if we affirm, that a diversity, so striking as to form an absolute contrast, is yet not inconsistent with complete and permanent unity and identity, we may, in like manner, affirm, that a substance which is hard, heavy, blue, transparent,—which unites with acids, not with alkalies,—and which is volatilizable at a low temperature,—is precisely the same substance as that which is soft, light, green, opaque,—which unites with alkalies, not with acids,—and which is absolutely infusible and fixed in the highest temperature to which we can expose it.

I have thus endeavoured to place, in the strongest possible light, the most imposing arguments which I can conceive to be urged against the permanent identity of the sentient and thinking principle, that, in combating even sophistry itself, you may learn, as I have said, to combat with it on equal ground, and assume no advantage but that irresistible advantage which truth must always afford to him who is the combatant of error.

The positive evidence of the identity of the mind, I shall proceed to consider in my next lecture.

LECTURE XIII.

On the Positive and Negative Evidence of Mental Identity.

MY last Lecture, Gentlemen, was employed in considering the great question of the identity of the mind, as one and permanent, amid all the infinite variety of our feelings; and particularly, in stating the two most forcible objections which I can imagine to be urged against this identity; one founded on the striking contrasts, intellectual and moral, which the same mind exhibits in different periods of life, and in different circumstances of fortune,—the other, more abstract, and, therefore, less obvious, but not less forcible, founded on the mere diversity of our temporary feelings as itself inconsistent with identity, at least with that strict and absolute identity to which, as in the case of the mind, nothing can have been added,—from which nothing can have been taken away,—and which, by its very nature, as simple and indivisible, must have been incapable of any elementary change.

Since the exposure of the fallacy, on which these objections are founded, would, however, afford only a sort of negative evidence of that great truth which they oppose, it will be of advantage, before entering on an examination of the objections themselves, to state, in the first place, the nature of that positive evidence, which does not, indeed, lead us to the belief of the unity and permanence of our spiritual being, by that slow process which is denominated reasoning, but constitutes to us, primarily and directly, an impossibility of disbelieving it. I do this the more readily,

from the opportunity which it gives of making you acquainted with the paramount importance of those principles of intuitive belief, which are essential to philosophy in all its forms, as they are physically essential, indeed, to the very preservation of our animal existence; and which the rash and unphilosophic extension of them by one class of philosophers, and the equally unphilosophic misapprehension of them by other writers who controverted them, have rendered more necessary, than it would otherwise have been, to state to you with precision.

Of these first truths, as they have been termed, the subject, which we are at present considering, affords one of the most striking examples. The belief of our identity is not the result of any series of propositions, but arises immediately, in certain circumstances, from a principle of thought, as essential to the very nature of the mind as its powers of perception or memory, or as the power of reasoning itself, on the essential validity of which, and consequently on the intuitive belief of some first truth on which it is founded, every objection to the force of these very truths themselves must ultimately rest. To object is to argue; and to argue is to assert the validity of argument, and, therefore, of the primary evidence, from which the evidence of each succeeding proposition of the argument flows. To object to the authority of such primary intuitive belief, would thus be to reason against reason, — to affirm and deny at the same moment, — and to own that the very arguments which we urge are unworthy of being received and credited.

As the nature of the process of reasoning has not yet come under our review, it may not at first appear to you, how essential the truths of intuition are to those very truths which are usually opposed to them.

But that they are thus essential, a very little attention will be sufficient to show you.

All belief, it is evident, must be either direct or indirect. It is direct, when a proposition, without regard to any former proposition expressed or understood, is admitted as soon as it is expressed in words, or as soon as it rises silently in the mind. Such are all the order of truths which have been denominated, on this account, first truths. The belief is indirect, when the force of the proposition, to which assent is given, is admitted only in consequence of the previous admission of some former proposition, with which it is felt to be intimately connected; and the statement in words, or the internal development of these relative propositions, in the order in which their relation to the primary proposition is felt, is all that constitutes reasoning. The indirect belief which attends the result of reasoning, even in the proudest demonstration, is thus only another form of some first truth which was believed directly and independently of reasoning; and, without this primary intuitive assent, the demonstration itself, in all its beautiful precision and regularity, would be as powerless and futile as the most incoherent verbal wrangling.

Without some principles of immediate belief, then, it is manifest, that we could have no belief whatever; for we believe one proposition, because we discover its relation to some other proposition, which is itself, perhaps, related, in like manner, to some other proposition formerly admitted, but which, carried back as far as it may, through the longest series of ratiocination, must ultimately come to some primary proposition, which we admit from the evidence contained in itself, or, to speak more accurately, which we believe from the mere impossibility of disbelieving it.

All reasoning, then, the most sceptical, be it remarked, as well as the most dogmatical, must proceed on some principles, which are taken for granted, not because we infer them by logical deduction, for this very inference must then itself be founded on some other principle assumed without proof; but because the admission of these first principles is a necessary part of our intellectual constitution. The ridicule, therefore, with which Dr. Priestley and some other English metaphysicians, were disposed to regard the decision of philosophical questions, on certain ultimate principles of common sense, was surely, at least in its wide degree of extension, misplaced; though the phrase *common sense*, it will be admitted, was not the happiest that could have been chosen. The controversy, indeed, was truly a verbal and insignificant one, unless as far as it had reference to the unnecessary multiplication of these principles, by the philosophers of this part of the island whom Dr. Priestley opposed; since, if traced to their ultimate evidence, it could have been only from some one or more of the principles of common sense, at least from those primary universal intuitions of direct belief, which were all that Dr. Reid and his friends meant to denote by the term, that the very reasonings employed against them derived even the slightest semblance of force. An argument that rejects not the phrase common sense only, which is of little consequence, but also what the phrase was intended, by its authors, to imply, is an argument confessedly founded upon nothing; which, therefore, as wholly unfounded, requires no answer, and which, at any rate, it would be vain to attempt to answer, because the answer, if it proceed on any ground whatever, must begin with assuming what the argument rejects as inadmissible.

All reasoning, then, I repeat, whether sceptical or dogmatical, must take for granted, as its primary evidence, the truth of certain propositions, admitted intuitively, and independently of the reasoning, which follows, but cannot precede, the perception of their truth; and hence, as we cannot suppose that the subsequent ratiocination, though it may afford room for errors in the process, can at all add evidence to these primary truths, — which, as directly believed, are themselves the ultimate evidence of each successive proposition, down to the last result of the longest argument, — we must admit that our identity, if it be felt by us intuitively, and felt universally, immediately, irresistibly, is founded on the very same authority as the most exact logical demonstration, with this additional advantage, that it is not subject to those possibilities of error in the steps of the demonstration, from which no long series of reasoning can be exempt.

So little accustomed are we, however, to think of this primary fundamental evidence of every reasoning, while we give our whole attention to the consecutive propositions which derive from it their force, that we learn, in this manner, to consider truth and reasoning as necessarily connected; and to regard the assertion of truths that do not flow from reasoning, as the assertion of something which it would be equally unworthy of philosophy to assert or to admit; though every assertion and every admission, which the profoundest reasoner can make, must, as we have seen, involve the direct or indirect statement of some truth of this kind. Nor is it wonderful that we should thus think more of the reasoning itself, than of the foundation of the reasoning; since the first truths, which give force to reasoning, but require no reasoning to establish them, must necessarily be of a kind which

all admit, and which, therefore, as always believed by us, and undisputed by others, have excited no interest in discussion, and have never seemed to add to our stock of knowledge, like the results of reasoning, which have added to it truth after truth. Yet that they are thus uninteresting to us, is the effect only of their primary, and universal, and paramount force. They are the only truths, in short, which every one admits; and they seem to us unworthy of being maintained as truths, merely because they are the only truths which are so irresistible in evidence as to preclude the possibility of a denial.

It is not as the primary evidence of all our processes of reasoning, however, that they are chiefly valuable. Every action of our lives is an exemplification of some one or other of these truths, as practically felt by us. Why do we believe, that what we remember truly took place, and that the course of nature will be in future such as we have already observed it? Without the belief of these physical truths, we could not exist a day, and yet there is no reasoning from which they can be inferred.

These principles of intuitive belief, so necessary for our very existence, and too important, therefore, to be left to the casual discovery of reason, are, as it were, an internal never-ceasing voice from the Creator and Preserver of our being. The reasonings of men, admitted by some, and denied by others, have over us but a feeble power, which resembles the general frailty of man himself. These internal revelations from on high, however, are omnipotent like their Author. It is impossible for us to doubt them, because to disbelieve them would be to deny what our very constitution was formed to admit. Even the atheist himself, therefore,—if, indeed, there be

one who truly rejects a Creator and Ruler of the universe,—is thus every moment in which he adapts his conduct implicitly, and without reasoning, to these directions of the Wisdom that formed him, obeying, with most exact subserviency, that very voice which he is professing to question or to deride.

That the assertion of principles of intuitive belief, independent of reasoning, may be carried to an extravagant and ridiculous length,—as, indeed, seems to me to have been the case in the works of Dr. Reid, and some other Scottish philosophers, his contemporaries and friends,—no one can deny; nor that the unnecessary multiplication of these would be in the highest degree injurious to sound philosophy,—both as leading us to form false views of the nature of the mind, in ascribing to it principles which are no part of its constitution, and, still more, as checking the general vigour of our philosophic inquiry, by seducing us into the habit of acquiescing, too soon, in the easy and indolent faith, that it is unnecessary for us to proceed farther, as if we had already advanced as far as our faculties permit. It is the more unfortunate, because our very avidity for knowledge, which is only another name for that philosophic curiosity in which inquiry originates, is itself favourable to this too easy acquiescence; tending, consequently, by a sort of double influence, to repress the very speculation to which it gave rise. This it does, by rendering the suspense of ungratified curiosity so painful to us, as to resemble, in a very great degree, the uneasiness which we feel from the ungratified cravings of bodily appetite. We more readily, therefore, yield to the illusion which seems to remove this suspense; and are happy to think, however falsely, that we have now completed our inquiry, and that, without attempting any more

elementary analysis, we may content ourselves with simply classing the results which we have already obtained. Though there is no human being who must not have felt doubts on some point or other, it is not every one who knows how to doubt. To the perfection of a doubt, indeed, it is essential,—if I may apply to it what rhetoricians say of an epic or dramatic narrative,—that it should have a beginning, a middle, and in many cases, too, though not in all, an end. The middle is a very easy matter; the great difficulty relates to the beginning and the end, and to the end not less than the beginning. We err equally, when the doubt ceases too soon, and when it does not cease where it ought to cease. There is a scepticism as different from the true spirit of philosophy, as the most contented ignorance, that has never questioned a single prejudice; a scepticism, which, instead of seeking to distinguish truth from falsehood, professes to deny altogether the competency of our faculties as to making such a distinction in any case, and to which any proposition, therefore, is as likely as its opposite. With this wild half-reasoning extravagance, which is ignorant whether it affirms or denies, and which does not even know certainly that it has any uncertainty at all, it would be manifestly absurd to reason; and we may even truly say of it, notwithstanding the high character of perfect doubting which it affects, that it does not know how to doubt, more than the all-credulous imbecility which it despises and derides; because it does not know in what circumstances doubt is legitimate, and in what circumstances it should cease. But, at the same time, he also, it may be said, does not know how to doubt, who is completely satisfied with the result of an inquiry which he is capable of prosecuting still

farther,—even though it were only by the addition of a single step to the thousand which he may already have made. Truth is the last link of many long chains; the first links of all of which, Nature has placed in our hands. When we have fairly arrived at the last, and feel completely that there is no link beyond, it would be manifestly absurd to suppose that we can still proceed farther; but if we stop before we have arrived at the last, maintaining, without stretching out our hand to make the experiment, that there cannot be yet another link after that which we have reached, it matters not how far we may have advanced. Truth is still beyond us—to be grasped only by an arm more vigorous and persevering.

If, instead of maintaining boldly that we have reached the last link of the chain, we content ourselves with affirming that we have reached the last which human effort can reach, we must beware that we do not measure the incapacity of the whole race of mankind by our own individual inability, or, which is far from improbable, that we do not mistake for inability, even in ourselves, what is only the irksomeness of long-continued exertion. Our power is often much greater than we are willing to believe; and in many cases, as La Rochefoucault very justly says, it is only to excuse to ourselves our own indolence that we talk of things as impossible. “Non putant fieri,” says Seneca, speaking of persons of this character, “quicquid facere non possunt. Ex infirmitate sua ferunt sententiam.”—“Scis quare non possumus ista? Quia nos posse non credimus.”—“Magno animo de rebus magnis judicandum est; alioqui videbitur illarum vitium esse quod nostrum est.”

Much evil, then, it must be admitted, would arise in the philosophy of mind from a disposition to

acquiesce too soon in instinctive principles of belief. But though these may be, and have been, multiplied unnecessarily, and beyond the truth of nature, it is not less certain, that of our mental nature such principles are truly a part. We should, indeed, draw monsters, not men, if we were to represent the human head and trunk with a double proportion of arms and legs; but we should also give an unfaithful portraiture of the human figure, and should draw monsters, not men, if we were to represent them with but one arm and leg, or with no arm or leg at all. In like manner, to suppose the mind endowed with more principles of intuition than belong to it, would be to imagine a species of mental monster. But it would not less be a mental monster, if we were to attempt to strip it of the principles which it truly possesses.

In contending, then, for the authority of certain first principles of belief, such as that on which I conceive the conviction of our identity to be founded, I am sufficiently aware in how many instances a reference to these has been rashly made by philosophers; when a deeper and more minute analysis would have shown that the supposed first principles were not elementary laws of thought, but were resolvable into others more simple. It is not to be inferred, however, from the rash attempts to establish principles of intuitive belief which do not exist, that there are no such principles in our mental constitution, any more than it is to be inferred, from the general prevalence of bad reasoning, that it is impossible for a human being to reason accurately. I trust, at any rate, that I have already sufficiently warned you against the danger of acquiescing too soon in any proposition, as a law of thought, precluding all further inquiry, from its own primary and independent evi-

dence; and that I have impressed you, not merely with the necessity of admitting some principles of this sort, as essential to every reasoning, but with the necessity also of admitting them, only after the most cautious examination.

The difficulty of ascertaining precisely whether it be truth which we have attained, is, in many cases, much greater than the difficulty of the actual attainment. Philosophy has in this respect been compared, by a very happy illustration, — which, therefore, homely and familiar as it is, I make no scruple to quote,—to “a game at which children play, in which one of them, with his eyes bandaged, runs after the others. If he catch any one, he is obliged to tell his name; and if he fail to name him, he is obliged to let him go, and to begin his running once more. It is the same,” says Fontenelle, the author from whom I borrow this image, “in our seeking after truth. Though we have our eyes bandaged, we do sometimes catch it; but then we cannot maintain with certainty that it is truth which we have caught, and in that moment it escapes from us.”

If there be, as it has been already shown that there must be, intuitive truths; and if we are not to reject, but only to weigh cautiously, the belief which seems to us intuitive, it will be difficult to find any which has a better claim to this distinction, than the faith which we have, in our identity, as one continued sentient and thinking being, or rather, to speak more accurately, as one permanent being, capable of many varieties of sensation and thought.

There is to be found in it, every circumstance which can be required to substantiate it as a law of intuitive belief. It is universal, irresistible, immediate. Indeed, so truly prior and paramount is it to mere reasoning,

that the very notion of reasoning necessarily involves the belief of our identity as admitted. To reason, is to draw a conclusion from some former proposition ;— and how can one truth be inferred from another truth, unless the mind, which admits the one, be the mind which admitted the other ? In its order, as much as in its importance, it may be truly considered as the first of those truths which do not depend on reasoning, and is itself necessarily implied, perhaps in all, certainly in the greater number, of our other intuitions. I believe, for example, without being able to infer it, or even to discover the greater probability of it, by any process of reasoning, that the course of nature in future will resemble the past ; and, since all mankind have the same irresistible tendency, I have no scruple in referring it to an original principle of our nature. In taking for granted this similarity, however, in the order of succession of two distinct sets of phenomena, I must previously have believed, that *I*, the same sentient being, who expect a certain order in the future phenomena of nature, have already observed a certain order in the past.

Since, then, the belief of our identity is intuitive and irresistible, the only inquiry which remains is as to the circumstances in which the belief arises. Identity is a relative term. It implies, of course, in every instance, a double observation of some sort. The identity of our mind is its continuance, as the subject of various feelings, or at least as that which is susceptible of various feelings. The belief of it, therefore, can arise only on the consideration of its successive phenomena ; and is indeed involved in the mere consideration of these as successive.

The knowledge of our mind as a substance, and the belief of our identity during successive feelings, may

be considered as the same notion, expressed in different words. Our identity is the unity and sameness of that which thinks and feels,—itself substantially unchanged amid the endless variety of its thoughts and feelings,—capable of existing separately in all these different states; not ceasing therefore when they cease, but independent of their transient changes. The knowledge of mind, then, as a substance, implying the belief of identity during changes of state, cannot be involved in any one of these separate states; and, if our feelings merely succeeded each other, in the same manner as the moving bodies of a long procession are reflected from a mirror, without any vestige of them as past, or, consequently, any remembrance of their successions, we should be as incapable of forming a notion of the sentient substance mind, abstracted from the momentary sensation, as the mirror itself; though we should indeed differ from the mirror, in having what mind only can have, the sensations themselves, thus rapidly existing and perishing.

But, if it be only on the consideration of some past feeling, that the belief of the permanent substance mind can arise, it is to the principle which recalls to us past feelings, that the belief is ultimately to be traced. We remember; and in that remembrance is involved the belief, the source of which we seek. It is not merely a past feeling that arises to us, in what is commonly termed memory, but a feeling that is recognised by us as ours, in that past time of which we think; a feeling, therefore, of that mind which now remembers what it before saw, perhaps, or heard, or enjoyed, or suffered. We are told by writers on this subject, that it is from a comparison of our present with our past consciousness, that the belief of our identity in these states arises; and this use of the term

comparison, which is commonly applied to a process of a different kind, may perhaps mislead you as to this simpler process. It is true, indeed, that the belief arises from a feeling of the past, that is remembered, together with the consciousness of our remembrance as a present feeling, — a contemplation, as it were, of two successive states of the mind. But the comparison is nothing more than this. It is not to be supposed that we discover in the two feelings some common quality or proportion, as when, in arithmetic or geometry, we compare two numbers, or two regular figures; for the two feelings may have nothing common except that very belief of identity which is involved in the remembrance itself. We remember the past, — we feel the present, — we believe, and cannot but believe, that the rememberer of the past existed in that past which he remembers. The process itself is sufficiently simple, however truly wonderful one of the feelings may be which forms the most important part of the process; for we are not to forget, that the remembrance itself, the revealer of the past, is not a past, but a present feeling. It is the mind existing for the present moment in a particular state, as much as any primary and immediate sensation is the mind existing in a particular state. That this state of remembrance, itself a present feeling, should be representative to us of some former feeling, so as to impress us irresistibly with the belief of that former state of the mind, is indeed most wonderful; but that it does impress us with this belief, is as undeniable as the belief itself is irresistible.

Our faith in our identity, then, as being only another form of the faith which we put in memory, can be questioned only by those who deny all memory, and with memory all reasoning of every kind, — who

believe only the existence of the present moment, and who, with respect to every thing else, are as incapable of opposing or questioning as they are of believing. If our memory be unworthy of the faith which we intuitively give to it, all that is founded on memory, and therefore demonstration itself, must equally deceive us. We cannot admit the most rigid demonstration, or expect it to be admitted, without having already admitted, intuitively, that identity, which in words only we profess to question, and to question which, even in words, is to assert the reality of that which we deny.

The belief of the identity of self, then, as the one permanent subject of the transient feelings remembered by us, arises from a law of thought, which is essential to the very constitution of the mind. It has accordingly all the qualities, which I can imagine to be required by the most rigid scrutinizer of our principles of intuitive assent. It is universal, and immediate, and irresistible. I do not believe, with more confidence, that the half of thirty-two is equal to the square of four, than I believe, that *I*, who computed the square of four, am the same with that mind, which computes the half of thirty-two, and asserts the equality of the two numbers.

This consideration is of itself decisive of the question of identity; since, if it be manifest, that there is an universal, immediate, and irresistible impression of our identity,—an impression, which cannot be traced to any law of thought more simple,—its truth is established by a species of evidence, which must be allowed to be valid, before the very objections can be put, in which it is professedly denied; every objection, however sceptical, involving, as we have seen, and necessarily involving, the assertion of some such in-

tuitive proposition, from which alone its authority, if it have any authority, is derived. In endeavouring to move the whole world of truth with his lever, there must still be some little spot, at least, on which the sceptic must be content to rest his foot as firmly as others. $\Delta\delta\varsigma \pi\epsilon\upsilon \sigma\tau\acute{\omega}$, he must still be condemned to say with Archimedes; and if we allow no resting-place to his foot,—or, even allowing him this, if we allow no fulcrum for the instrument which he uses, he may contract or lengthen his lever at pleasure; but all the efforts which, in such circumstances, he can make, will exhibit nothing so striking to those by whom the efforts are witnessed, as the laborious impotence of him who employs them. To deny any first principles of intuitive belief, that are not themselves to stand in need of a demonstration,—which, as a demonstration, or series of consecutive propositions, can be founded, in its primary evidence, only on some principle of the same kind, — is indeed for such a sceptical mechanic to set his foot upon air, rather than on the ground, on which all around him are standing, and to throw away the single fulcrum on which his lever rests, and from which alone all its power is derived.

The belief of our mental identity, then, we may safely conclude, is founded on an essential principle of our constitution, in consequence of which, it is impossible for us to consider our successive feelings, without regarding them as truly our successive feelings, states, or affections of one thinking substance. But though the belief of the identity of the substance which thinks, is thus established on the firmest of all grounds, the very ground, as we have seen, on which demonstration itself is founded,—even though no particular fallacy could be traced in the objections brought

against it, which I detailed in my last lecture,—it is still an interesting inquiry, in what the fallacy of the objections consists : and the inquiry is the more interesting, as it will lead us to some remarks and distinctions which, I flatter myself, will throw some light on the philosophy of all the changes, material as well as mental, that are every moment taking place in the universe.

The objections brought against the identity of the mind, from a supposed incompatibility of its diversities of state with sameness of substance, appear to me to depend on the assumption of a test of identity, transferred, without sufficient reason, from the obvious appearances of matter to mind, and which, if matter be accurately considered, is equally false, too, as applied to it. The cause of the transference, however, from the obvious material appearances, is a very natural one, — the same which has included so many analogies, from external things, in the language which we employ to express the intellectual functions. It is with the changes of the material substances around us that all our operations, which leave any fixed and permanent marks of our agency, are immediately concerned. It is indeed only through them that our communication with other minds can be at all carried on ; and it is not wonderful, therefore, that, in considering the nature of change, of every kind, our philosophy should be strongly tainted with prejudices, derived from the material world, the scene of all the immediate and lasting changes which it is in our power to produce. How much the mere materialism of our language has itself operated in darkening our conceptions of the nature of the mind, and of its various phenomena, is a question which is obviously beyond our power to solve ; since the solution of it

would imply that the mind of the solver was itself free from the influence which he traced and described. But of this, at least, we may be sure, that it is almost impossible for us to estimate the influence too highly, for we must not think that its effect has been confined to the works of philosophers. It has acted, much more powerfully, in the familiar discourse and silent reflections of multitudes, that have never had the vanity to rank themselves as philosophers, — thus incorporating itself, as it were, with the very essence of human thought. In that rude state of social life, in which languages had their origin, the inventor of a word probably thought of little more than the temporary facility which it might give to himself and his companions, in communicating their mutual wants and concerting their mutual schemes of co-operation. He was not aware that with this faint and perishing sound, which a slight difference of breathing produced, he was creating that which was afterwards to constitute one of the most imperishable of things, and to form, in the minds of millions, during every future age, a part of the complex lesson of their intellectual existence, — giving rise to lasting systems of opinions, which, perhaps, but for the invention of this single word, never could have prevailed for a moment, and modifying sciences, the very elements of which had not then begun to exist. The inventor of the most barbarous term may thus have had an influence on mankind, more important than all which the most illustrious conqueror could effect by a long life of fatigue, and anxiety, and peril, and guilt. Of the generalship of Alexander, and the valour of his armies, — of all which he suffered, and planned, and executed, what permanent vestiges remain, but in the writings of historians !

In a very few years after the termination of his dazzling career, every thing on the earth was almost as if he had never been. A few phrases of Aristotle achieved a much more extensive and lasting conquest ; and are, perhaps even at this moment, exercising no small sway on the very minds which smile at them with scorn ; and which, in tracing the extent of their melancholy influence on the progress of science, in centuries that are past, are unconscious that they are describing and lamenting prejudices, of which they are themselves still, in a great measure, the slaves. How many truths are there, of which we are ignorant, merely because one man lived !

To return, however, to the objections which we are to consider. Diversity of any kind, it is said, is inconsistent with absolute identity, in any case ; and in the mind, which is by supposition indivisible, nothing can be added to it or taken away, and no internal change can take place, in the relative positions and affinities of parts which it has not. Joy and sorrow are different in themselves ; that which is joyful, therefore, and that which is sorrowful, cannot be precisely the same, or diversity of any kind might be consistent with absolute identity. That the joyful and sorrowful mind are precisely the same, is not asserted, if the sameness be meant to imply sameness of state ; for it is admitted, that the state of the mind is different in joy and sorrow ; and the only question is, whether this difference, to which we give the name of difference of state, be incompatible with complete and absolute sameness of substance.

The true key to the sophistry is, as I have already said, that it assumes a false test of identity, borrowed, indeed, from the obvious appearances of the material world, but from these obvious appearances only.

states of which it is susceptible, is thus, in a great measure, solved, when we find this union of variety and sameness to be the result of a law that is not limited to our spiritual being, but extends to the whole universe, or at least to every thing which we know in the universe. It can no longer appear to us peculiarly wonderful, that the mind should exist at different moments in opposite states, and yet be the same in its own absolute nature, when we shall find that this compatibility is true of every atom around us, as much as of the mind itself.

LECTURE XIV.

Continuation of the Negative Evidence of Mental Identity.

MY Lecture yesterday was, in a great measure, employed in illustrating the primary evidence of those principles of intuitive assent, to which we traced our belief of the identity of the mind as one and permanent, in all the variety of its ever-changing affections. I explained to you, particularly with a view to that vague and not very luminous controversy, in which Dr. Priestley was engaged with some philosophers of this part of the island, in what manner the truth of these intuitive propositions must be assumed or admitted by all who reason, even by the wildest sceptic who professes to question them ; pointing out to you, at the same time, the danger to which two of the strongest principles of our constitution, our indolence and our love of knowledge, alike expose us,—the danger of believing too soon that we have

Because diversity of any kind seems, in these familiar cases, to be inconsistent with absolute identity, we draw hastily the universal conclusion, that it is inconsistent with absolute identity in any case. Paradoxical as the assertion may appear, however, we may yet safely assert, that, not in mind only, but, as we shall find, in matter also, some sort of diversity is so far from being inconsistent with absolute identity, that there is scarcely a single moment, if, indeed, there be a single moment, in which every atom in the universe is not constantly changing the tendencies that form its physical character, without the slightest alteration of its own absolute identity; so that the variety of states or tendencies of the same identical mind, in joy and sorrow, ignorance and knowledge, instead of being opposed, as you might think, by the general analogy of nature, is in exact harmony with that general analogy. It is from our view of matter, unquestionably, as implying, in all its visible changes of state, some loss of identity, some addition or subtraction of particles, or change of their form of combination, that the objection, with respect to the identity of the mind, during its momentary or lasting changes of state, is derived; and yet we shall find, that it is only when we consider even matter itself superficially and slightly, that we ascribe the changes which take place in it, to circumstances that affect its identity. To view it more profoundly and accurately, is to observe, even in matter, constant changes of state, where the identity has continued entire, and changes, as opposite as those of the mind itself when, at different periods, it presents itself in different aspects, as sad and cheerful, ignorant and wise, cruel and benevolent.

The apparent mystery of the continued identity of one simple and indivisible mind, in all the variety of

states of which it is susceptible, is thus, in a great measure, solved, when we find this union of variety and sameness to be the result of a law that is not limited to our spiritual being, but extends to the whole universe, or at least to every thing which we know in the universe. It can no longer appear to us peculiarly wonderful, that the mind should exist at different moments in opposite states, and yet be the same in its own absolute nature, when we shall find that this compatibility is true of every atom around us, as much as of the mind itself.

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arrived at truths which are unsusceptible of any minuter analysis. In conformity, therefore, with the caution which this danger renders necessary, we examined the belief of our continued identity; and we found it to possess the distinguishing marks, which I ventured to lay down as the three great characters of intuition, that it is universal, immediate, and irresistible;—so universal, that even the very maniac, who conceives that he was yesterday emperor of the moon, believes that he is to-day the very person who had yesterday that empire;—so immediate, that we cannot consider any two feelings of our mind as successive, without instantly considering them as feelings of our mind, that is to say, as states of one permanent substance;—and so irresistible, that even to doubt of our identity, if it were possible for us truly to doubt of it, would be to believe, that our mind, which doubts, is that very mind which has reflected and reasoned on the subject.

Having thus stated the positive ground of belief in our spiritual identity, I proceeded to consider the negative evidence which might arise from the confutation of the objections urged against it,—objections drawn from the supposed incompatibility of the changes of our mental affections, with that strict absolute identity of substance, to which nothing can have been added, and from which nothing can have been taken away. The test of identity, which this supposed incompatibility implies, I stated to be a very false one, transferred from matter to mind, and borrowed, not from a philosophical, but from a very superficial view even of matter itself. If it appear, on a closer inquiry, that matter itself, without the slightest loss of identity, exists at different moments, in states which are not merely different but opposite,

and exists in an almost infinite variety of such states, it cannot surely seem wonderful, that the mind also should, without the slightest loss of its identity, exist, at different moments, in states that are different and opposite.

That a superficial view of matter, as it presents itself to our mere organs of sense, should lead us to form a different opinion, is, however, what might readily be supposed; because the analogies which that superficial view presents, are of a kind that seem to mark a loss of identity wherever the state itself is altered.

In experimental philosophy, and in the obvious natural phenomena of the material world, whenever a body changes its state, some addition or separation has previously taken place. Thus, water becomes steam by the addition, and it becomes ice by the loss, of a portion of that matter of heat which is termed by chemists caloric; which loss and addition are, of course, inconsistent with the notion of absolute numerical identity of the corpuscles, in the three states of water as a solid, a liquid, and a gaseous vapour. Perception, by which the mind is metaphorically said to acquire knowledge, and forgetfulness, by which it is metaphorically said to lose knowledge, have, it must be confessed, a very striking analogy to these processes of corpuscular loss and gain; and, since absolute identity seems to be inconsistent with a change of state in the one set of phenomena, with which we are constantly familiar, we find difficulty in persuading ourselves that it is not inconsistent with a change of state in the other set also. It is a difficulty of the same kind as that which every one must have felt, when he learned, for the first time, the simple physical law, that matter is indifferent as to the states of motion and rest, and

that it requires, therefore, as much force to destroy completely the motion of a body, as to give it that motion when at rest. We have not been accustomed to take into account the effects of friction, and of atmospherical resistance, in gradually destroying, without the interference of any visible force, the motion of a ball, which we are conscious of effort in rolling from our hand ; and we think, therefore, that rest is the natural state of a body, and that it is the very nature of motion to cease spontaneously. “*De-discit animus sero, quod didicit diu.*” It is a very just saying of a French writer, that “it is not easy to persuade men to put their reason in the place of their eyes ; and that when, for example, after a thousand proofs, they are reasonable enough to do their best to believe that the planets are so many opaque, solid, habitable orbs, like our earth, they do not believe it in the same manner as they would have done, if they had never looked upon them in another light. There still comes back upon their belief something of the first notion which they had, that clings to them with an obstinacy which it requires a continual effort to shake off.”¹

It is, then, because some substantial loss or gain does truly take place in the changing phenomena of the bodies immediately around us, to which we are accustomed to pay our principal attention, that we learn to regard a change of state in matter as significant of loss of identity, and to feel, therefore, some hesitation in admitting the mental changes of state to be consistent with absolute sameness of substance. Had our observation of the material phenomena been different, there would have been a correspondent difference in our view of the changes of the phenomena of the mind.

¹ Fontenelle, *Pluralité des Mondes*, Conversat. 6me.

If, for example, instead of previously gaining or losing caloric, — as in the constitution of things, of which we have our present experience, — the particles of the water had suddenly assumed the state of vapour, on the sounding of a trumpet at a distance, and the state of ice, immediately, on the rising of the sun ; in short, if the different changes of state in bodies, by which their physical character for the time seems, in many cases, to be wholly altered, had occurred without any apparent loss or gain of substance, we should then no longer have found the same difficulty in admitting the changes of state in mind as consistent with its identity ; and the sentient substance, which previously existed in a different state, might then, on the sounding of a trumpet, have been conceived by us to begin to exist, in the state which constitutes that particular sensation of hearing, or, on the rising of the sun, to exist in that different state which constitutes the sensation of colour, as readily as the material substance, previously existing in the form of water, to begin at the same moment, without any essential or numerical change, and consequently with perfect identity, to exist in the new state of steam, or in the state of a crystalline mass, as solid as the rock from which it hangs as an icicle, or that glitters with its gemmy covering.

But it may be said, that the very supposition which we now make is an absurd one ; that the mere presence of the sun in the firmament, at a distance from the water, cannot be supposed to convert it into ice, unless the water gain or lose something, and consequently cease to have absolute identity ; and that the case, therefore, is of no value, as illustrating the compatibility of change of state in our various sensations, with unaltered identity of the sentient mind. To

this I might answer, that although the presence of the sun certainly does not operate in the manner supposed—as the sequences of events are now arranged in the great system of nature, — it is only by experience, and not by intuition or reasoning, we know, that the presence of the sun has not the very effect which the separation of caloric now produces, and that there is nothing absolutely more wonderful in the one case than in the other. If our experience had been the reverse of this,—if the change of place of a few particles of caloric had not, as now, converted the liquid water into that solid congeries of crystals which we call ice,—we should then have found as little difficulty in conceiving that it should not have this effect, as we now find in adapting our belief to the particular series of events which constitute our present experience.

It is not necessary, however, to have recourse to suppositions of this kind; since the system of nature, even according to our present experience of it, furnishes sufficient proof of changes as wonderful in the state of bodies produced obviously at a distance, and, therefore, without any loss or addition which can affect their identity. For sufficient evidence of this, I need appeal only to the agency of the celestial gravitation; that gigantic energy of nature which fills the universe, like the immediate presence of the Deity himself,—to which, in the immensity of its influence, the distances, not from planets to planets merely, but from suns to suns, are like those invisible spaces between the elements of the bodies around us, that seem actual contact to our eyes,—and in comparison with which, the powers that play their feeble part in the physical changes on the surface of our earth, are as inconsiderable as the atoms, on which they exercise their little

dominion, are to the massy orbs which it wields, and directs at will,—

Those bright millions of the heavens,
Of which the least full godhead had proclaim'd,
And thrown the gazer on his knee. . . . Admire
The tumult untumultuous. All on wing,
In motion all; yet what profound repose!
What fervid action, yet no noise!—as awed
To silence by the presence of their Lord.¹

The action of these great planetary bodies on each other, it surely cannot be denied, leaves their separate identities precisely as before; and it is a species of agency, so essential to the magnificent harmony of the system, that we cannot conceive it to have been interrupted for a single moment since the universe itself was formed. An action, therefore, has been constantly taking place on all the bodies in the universe, and consequently a difference of some sort produced, which yet leaves their identities unaffected. But, though the identity of the substance of the separate orbs is not affected by their mutual attractions, the state, or temporary physical character, of these orbs, considered individually as one great whole, must be affected,—or it would be absurd to speak of their mutual agency at all; for action implies the sequence of a change of some sort, and there can be no action, therefore, where the substances continue precisely the same, and their state also precisely the same, as before the action. Accordingly, we find, on our own globe, that great changes of state, such as form the most striking of its regular visible phenomena, are produced by this distant operation. The waters of our ocean, for example, rise and fall, and, therefore, must have altered states, or physical

¹ Young's Night Thoughts, Night 9.

tendencies, in consequence of which they rise and fall, as there is no corresponding addition or subtraction of matter, at regular intervals, which it is in our power to predict with infallible accuracy,—not because we can divine any loss of identity in the fluid mass,—any internal change in its elementary composition, or the nature and varieties of the winds which are to sweep along its surface; but because we know well, at what hours, and in what relative situation, a certain great body, at the distance of some hundreds of thousands of miles, is to be passing along the heavens.

If, then, the mere position of a distant heavenly body can cause the particles of our ocean to arrange themselves in a different configuration from that in which they would otherwise have existed, and, therefore, must have produced in the particles that change of state, which forces them, as it were, into this altered form, without addition to them of any thing, or subtraction of any thing,—in short, leaving in them the same absolute numerical or corpuscular identity as before,—there surely can be no greater difficulty, in supposing, as in the case before imagined, that a certain position of the sun might have immediately caused the particles of a distant liquid to arrange themselves in the particular configuration that constitutes the solid ice,—which, though perhaps a more striking change of state, would not have been more truly a change of state, than that which it now unquestionably produces, in modifying the rise or fall of our tides. And, if a distant body can produce in matter a change of state, without affecting its identity, by any addition or subtraction, we may surely admit, that the presence of an external body, as in perception, may, in mind also, produce a change of state,

without affecting its identity; unless, indeed, (which is not impossible, because nothing is impossible to human folly,) we should be inclined to reverse our prejudices, and maintain, that matter may be easily conceived to change the affinities or tendencies that form its physical character, in the particular circumstances observed, without any addition or subtraction of substance, but that some positive addition or subtraction of substance is, notwithstanding, essential to the simple changes or affections of the mind.

If the moon were suddenly annihilated, our earth would still be the same identical planet, without the loss or gain of a single particle of substance. But the state of this planet, as a whole, and of every atom of this planet, would be instantly altered, in many most important respects, — so completely altered, indeed, that not an atom of the mass would tend to the other atoms of the mass, in the same manner as before. In like manner, if the light, which now, operating on one of my organs of sense, causes my mind to exist in the state that constitutes the sensation of a particular colour, were suddenly to vanish, the state of my mind would be instantly changed, though my mind itself, considered as a substance, would still continue unaltered. In both cases, — the spiritual and the material, — and in both cases alike, — absolute identity, in the strictest sense of the term, is consistent with innumerable diversities.

In the discussion of this supposed difficulty, I have chosen, for illustration, in the first place, to consider the planetary attractions, in preference to those which occur in the minuter changes that are simply terrestrial; because, in the case of operations at a

distance, it is impossible for us not to perceive, that, even in matter, a change of state is not inconsistent with complete permanence of absolute corpuscular identity; while, in the compositions or decompositions, that occur spontaneously, or by artificial experiment, in the physical changes on the surface of our earth, the additions or subtractions of matter, that appear to us to constitute these phenomena, truly destroy the corpuscular identity of the substances in which the change takes place; and the change of state is thus considered by us as implying a positive substantial change. But, when we examine even these phenomena a little more deeply, we shall find, that, like the great operations of gravitation on the masses of the universe, the change, in these also, is not a positive change of substance, but is simply a change of state in a congeries of independent substances, which we term one substance, merely because the spaces, that are really between them, are imperceptible to our very imperfect organs; the addition or subtraction of matter being not that which constitutes the new states or tendencies of the particles which continue present, but merely that which gives occasion to those changes of state or tendency;—as the positions of the heavenly bodies do not constitute the phenomena of our tides, but merely give occasion to that difference of state in the particles of the ocean, in consequence of which they assume of themselves a different configuration. Man is placed, as it has been truly said, on a point, between two infinities,—the infinitely great, and the infinitely little. It may be an extravagant speculation, to which I have before alluded,—but it is not absolutely absurd, to suppose, that, in the unbounded system of nature, there may be beings, to whose vision the

whole planetary attendants of each separate sun, which to us appear to revolve at distances so immense, may yet seem but one small cohesive mass; in the same manner, as, to those animalculæ, whose existence and successive generations had been altogether unknown to man, till the microscope created them, as it were, to his feeble sight, and which, perhaps, are mighty animals compared with races of beings still more minute, that are constantly living in our very presence, and yet destined never to be known to us,—those bodies, which to us seem one small cohesive mass, may appear separated by distances, relatively as great as to us are those of the planets. That light, itself a body, should pass freely through a mass of solid crystal, is regarded by us as a sort of physical wonder; and yet it is far from impossible, that, between the atoms which compose this apparently solid mass, whole nations of living beings may be dwelling, and exercising their mutual works of peace or hostility; while perhaps, if philosophy can be exercised, in brains of such infinitesimal dimensions, in the same manner as in our coarser organs, the nature of the atoms, or distant worlds around them, may be dividing, with endless absurdities, the Ptolemies and Aristotles of the little republics. We have all so much of the nature of the inhabitants of Brobdignag, that a supposition of this kind,—which is perhaps truly in itself not a very probable one,—yet appears to us much more improbable than it really is. We smile, as recognising our own nature, when the sovereign of that country of giants is represented by the most unfortunate, or rather the most fortunate of all voyagers, as “turning to his first minister, who waited behind him with a white staff, near as tall as the mainmast of the Royal Sovereign, and observing

how contemptible a thing was human grandeur, which could be mimicked by such diminutive insects. And yet," said he, "I dare engage, those creatures have their titles and distinctions of honour; they contrive their nests and burrows, that they call houses and cities; they make a figure in dress and equipage; they love, they fight, they dispute, they cheat, they betray." And we fully enter into the difficulty which the *savans* of the country, who had all agreed that the new-discovered animal could not have been produced according to the regular laws of nature, must have found in giving him a name. "One of them seemed to think that I might be an embryo, or abortive birth. But this opinion was rejected by the other two, who observed my limbs to be perfect and finished; and that I had lived several years, as it was manifest from my beard, the stumps whereof they plainly discovered through a magnifying glass. They would not allow me to be a dwarf, because my littleness was beyond all degrees of comparison; for the queen's favourite dwarf, the smallest ever known in that kingdom, was near thirty feet high. After much debate, they concluded unanimously, that I was only *velplum scalcath*, which is interpreted literally *lusus naturæ*; a determination exactly agreeable to the modern philosophy of Europe, whose professors, disdaining the old evasion of occult causes, whereby the followers of Aristotle endeavoured in vain to disguise their ignorance, have invented this wonderful solution of all difficulties, to the unspeakable advancement of human knowledge."¹

Whatever may be thought of speculations of this kind, however, with respect to the relative distance of

¹ Gulliver's Travels, part ii. chap. iii.

the atoms of bodies, it is not the less certain, that these atoms are separate substances, independent of the other similar or different substances that apparently adhere to them in continuity,—that they are, in truth, the only material substances which really exist, since the bodies which we term masses are only those very atoms under another name,—that they remain and cannot but remain, identical, amid all the changes of chemical composition or decomposition,—and that the change which they suffer, therefore, however strikingly their physical character may be altered for the time, is a change not of substance, but of state only. In the case of the formation of ice, for example, the elementary atoms themselves, which are all that truly exist in nature, are not, and cannot be, changed; but particles, which were formerly easily separable from adjacent particles, now resist this separation by a considerable force. There is a change in their state, therefore, since they now exist with a different degree of tendency toward each other,—a change, to which the separation of a quantity of caloric may, indeed, have given occasion; but which is to be distinguished from that momentary separation itself, since the solidity, which is only another name for the corpuscular resistance, continues after the separation is complete, and would continue for ever, unless a change of temperature were again to restore that former state or tendency of the particles, in which they were easily separable. To him who has learned to consider bodies as, what they truly are, a multitude of separate and independent corpuscles, there is no change of identity, and cannot be any change of identity, in all the phenomena or changes of the universe. The atoms, which alone existed, continue as before; and all which con-

stitutes the phenomenon, or varieties of successive phenomena, is a change of their place or tendency.

This corpuscular view of the material universe,—which, of course, admits an infinite variety of applications, corresponding with the infinite variety of its phenomena, — has many most striking analogies in that moral universe with the phenomena of which we are chiefly concerned. Indeed, when we consider any of the masses before us, as deriving all its apparent magnitude from a number of separate bodies, of which it is composed,—any one of which, individually, would be too minute to be distinguishable by us, — it is scarcely possible not to think of the similarity which it presents to the multitudes of human beings that are, as it were, massed together in the great nations of the earth; and in which any single individual, if he could be supposed to have exercised his powers separately, would have been truly as insignificant as a single atom separated from the mass of which it is a part. What we call the greatness of a nation is nothing more than the union of a number of little interests and little passions joined in one common object; to which insignificant elements, so wonderful when combined, if we could distinctly reduce, by analysis, the most unrivalled power that has ever commanded the admiration and envy of the world, it would, at first view, run some little risk of appearing contemptible. The advantages of this social union of mankind, as silently felt at every moment, are unquestionably so infinite in comparison, as almost to sink into nothing the occasional evils to which the aggregation and massing of so many powers, when ill directed, may give rise,—though these terrific evils, when they occur, may dwell more permanently in the mind; like the visita-

tions of storms and earthquakes, which we remember for ever, while, with a sort of thankless forgetfulness, we scarcely think of the calm beauty and regularity with which season after season passes over us. The rock which, descending from the top of a mountain, lays waste whatever it meets in its progress, and to attempt to stop which, while its short career lasts, would be almost like instant annihilation, derives this overwhelming force from an infinite number of independent corpuscles, any one of which, if it had fallen singly, would have been far less destructive than the flutter of an insect's wing; and that tyrannical power of a single man, before which, in unhappy ages of successful oppression, the earth has so often trembled—as before some power of darkness, endowed with more than human sway,—has derived its irresistible might, not from powers included in itself—which, in reference to the objects achieved by it, would have been feeble indeed,—but from the united powers of beings still feebler, who were trembling while they executed commands to which themselves alone gave omnipotence.

To this corpuscular view, however, though it is unquestionably the sort of view to which, in our ultimate physical inquiries into the phenomena of matter, we must come, you may, perhaps, not be sufficiently accustomed, to enter fully into the reasoning on the subject. It will probably be less difficult for you, if we take rather, as an illustration, the simpler case of impulse; in which the bodies affecting each other are not, as in chemistry, indistinguishable corpuscles, but masses, clearly defined, and easily perceptible.

I need not, of course, repeat the arguments formerly stated, to prove that attraction, however general it may be as a law of matter at all visible distances, does not continue, but gives place to an opposite tendency

at those smaller distances which we are unable to perceive with our weak organs, and which we learn to estimate only by effects that are inconsistent with absolute contact: for example, by the well-known fact of the compressibility of bodies, which could not take place if their particles were already in contact, and which, by the continually increasing resistance to the compressing force that would bring the corpuscles nearer, shows, that there is, at different degrees of nearness, a tendency continuing to operate, which is the very reverse of attraction. There is, therefore, every reason to believe, — since repulsion, as the fact of forcible compression shows, takes place while the particles of bodies are still at a certain distance, — that the motion produced in one body by another, and ascribed to immediate impulse, is produced, without actual contact, by this mutual repulsion, as it is called, of the bodies when brought within a certain invisible degree of vicinity to each other; or, in other words, — for repulsion means nothing more mysterious than this simple fact, — the tendency which bodies, in certain relative positions of apparent but not actual contact, have to fly off from each other with certain degrees of velocity, as, in certain other relative positions, of distinguishable distance, they have a tendency to approach each other. This repulsion, or tendency from each other at one point of nearness, is of itself as easy to be conceived, as that attraction, or tendency toward each other at other points of distance, to which we give the name of gravitation; and it is only from our greater familiarity with the one, as operating at distances which are visible, while the other, — except in a few cases, such as those of magnetism and electricity, — operates only at distances which are imperceptible to us, that we feel a little more difficulty in

admitting the repulsion than the attraction of matter. There is, then, — however universal gravitation may seem, when we think only of perceptible distances, — a certain point of near approach, before actual contact, at which gravitation ceases; and, beyond this point, the tendency of bodies toward each other is converted, as the force necessary to compress them evidently shows, into a tendency from each other; both tendencies, indeed, being inexplicable, but the one in no respect more so than the other.

For this apparent digression, on a point of general physics, I make no apology, as it is absolutely necessary for illustrating the particular case to which I am to proceed. The consideration of it requires, what the whole of this discussion, indeed, has already required from you, no small exercise of patient attention; but I trust that I sufficiently prepared you for this in a former lecture, when I stated the importance of such attention, not merely in relation to the subject considered at the time, but as a part of your mental discipline, and the advantage which might thus be derived to your intellectual character, from the very difficulties which the subject presents. It is in philosophy as in many a fairy tale. The obstacles which the hero encounters, are not progressively greater and greater; but his most difficult achievements are often at the very commencement of his career. He begins, perhaps, with attacking the castle of some enchanter, and has to force his way, unassisted, through the griffins and dragons that oppose his entrance. He finishes the adventure with the death of the magician, and strips him of some ring, or other talisman, which renders his subsequent adventures comparatively easy and secure. I cannot venture to say, indeed, that a perfect acquaintance with the difficulties of the present

question, and of some of the late questions which have engaged us, will be such a talisman to you, in your future career of intellectual science. But I may safely say, that the habit of attentive thought, which the consideration of subjects so abstract necessarily produces in those who are not too indolent to give attention to them, or too indifferent to feel interest in them, is more truly valuable than any talisman of which accident or force might deprive you. The magic with which this endows you, is not attached to a ring, or a gem, or any thing external; it lives, and lives for ever, in the very essence of your minds.

When a billiard ball, on being struck, approaches another, which is at rest, it soon arrives at the point of seeming, but not actual contact, at which their mutual attraction ceases, and the force which it has acquired still carrying it on, it passes this bounding point, and arrives at a point at which repulsion has already begun. Accordingly the body, formerly at rest, now flies off on a principle precisely similar (though the mere direction be opposite) to that by which the same ball, if dropped from a hand that supported it, would, without the actual impulse of any body, have quitted its state of rest, as in the present case, and have gravitated, or, which is the same thing, have moved of itself toward the earth.

Before the first ball, which you will, perhaps, more easily remember by the name A, arrived so very near to the second ball B, as to have come within the sphere of their mutual repulsion, this second ball was at rest, that is to say, it had no tendency to move in any direction. This state of rest, however, is only one of the many states in which a body may exist; and if, which must surely be allowed, a body having a tendency to continued motion, be in a different state

from one which has no such tendency, this change of state implying, it must be remarked, not even the slightest loss of identity, has been produced in the body B, by the mere vicinity of the body A. For the sake of illustration, let us now suppose this body A to be hot or luminous. It will still, as before, produce the new state of tendency to motion, in B, when it arrives within the limits of their sphere of repulsion. Is it less conceivable, then, that the mere presence of this hot or luminous body should produce the new sensation of warmth, or of colour, which are different states of the sentient mind, without affecting in the slightest degree the identity of the mind itself, than that it should produce, without any loss of absolute identity, in the body B, an immediate tendency, in that body, to move along with a certain velocity, a state as different from that in which it remains at rest, as the sensation of warmth, which is one state of the mind, is different from the sensation of colour, which is another state of the mind? Nor does the parallel end here; for, since a body at rest, acquiring a tendency to begin motion in one particular direction, as, for example, to move north, must be in a different state from that in which it would have been, if it had acquired an instant tendency to move east, or in any other direction; and the direction once begun, being the same, since a body having a tendency to move with one velocity, must, at every moment of its progress, be in a different state from that in which it has a tendency to move with a different velocity,—it is evident, that the mere presence of a body may produce, in a second body, according to the difference of their positions and relative magnitudes, a variety of states, that, when all the varieties of direction and all the varieties of velocity are esti-

mated together, may be considered as infinite—equal, at least in number, to the different states of which the mind is susceptible, in its almost infinite variety of feelings; and all this without any essential change that can affect the identity of the quiescent or moving body, or any essential change that can affect the identity of the mind.

I am aware, that, when you consider, for the first time, this assertion of an infinite variety of states, corresponding with all the innumerable varieties of direction and velocity, in the tendencies of a simple billiard ball, which, in the various circumstances supposed, appears to us precisely the same, in all its sensible qualities, you may be apt to conceive, that the assertion must be founded on a mistake, and, from the influence of former prejudice, may be inclined to think, that, when it exhibits a tendency to begin to move east at one time, and, at another time, a beginning tendency to move north, this does not arise from any difference of state in itself, but from its being merely carried along by the first ball, which was itself previously moving in one or other of these particular lines of direction. When the elastic billiard ball, however, bounds away from the ball which strikes it, this supposition is manifestly inapplicable; and, in all cases, it is the influence only of former prejudice which can lead you to this opinion,—the influence of that prejudice, by which you may have been accustomed to consider impulse, not as inducing a tendency to motion at some little distance, but as involving the necessity of actual contact. To destroy this prejudice, a very little reflection on the phenomena of elastic bodies, in their shocks and mutual retrocessions, is surely all that can be requisite; and if the motion of B, and consequently its tendency to motion, have

begun without contact of A, as it afterwards continues while A, the elastic body which struck it, is moving back in an opposite direction, it could not be by mechanical trusion, as carried along by A, which is still at some points of distance from it when its motion begins, and at still greater distance the longer the motion continues, that B has assumed any one of its variety of states — that, for example, in which, in one case, it tends to move east, in another case to move north; in one case to move rapidly, in another slowly. To say that the body acquires this new tendency because it is impelled, is only to say that it is impelled because it is impelled. It is an equally idle use of language, to affirm, — as if a word could obviate the difficulty instead of merely stating it, — that A, in communicating a different tendency to B, which was before at rest, does this by a principle or power of repulsion; for this, as I have said, is merely to state, in a single word, the regularity, in certain circumstances, of the very fact asserted. The different tendencies of B, and consequently the different states in which B exists, are not the less different, in whatever manner the difference may have been produced, or by whatever word, or combination of words, the difference may be expressed. There is no magic in the phrase, principle of repulsion, or power of repulsion, which can render the same, states or tendencies that are in themselves opposite; — for, as far as we understand the phrase, it expresses nothing more than the invariableness of the simple fact, that, in certain circumstances of relative position, bodies have a tendency to fly off from each other, as, in certain other circumstances of relative position, which constitute the phenomena of gravitation, they have a tendency to approach. Whatever term we may employ to denote it, it is still

a physical fact, that, at a certain point of near and seemingly close approach of another mass, a body, which was before in a state of rest, acquires immediately a tendency to fly off in different directions, and with different velocities at different times, and consequently, that, if the tendency to begin or to continue motion in one direction, and with one velocity, be a state different from that which constitutes the tendency to begin or to continue motion in another direction, and with another velocity, the ball B, in these different circumstances, however identical it may be in substance, exists in two different states; or all states, however different, may be said to be the same.

It may be admitted, then, that the feeling of rapture is a state of mind completely different from that which constitutes the feeling of agony; that the sensation of the fragrance of a rose has no resemblance to our conception of a sphere or of an equilateral triangle; and that, in general, all those thoughts and emotions, which, — more truly than the mere union of the immortal spirit within us with the body which it animates, — may be said to constitute life,

“Love, Hope, and Joy, fair Pleasure’s smiling train,—
Hate, Fear, and Grief, the family of Pain;”

these, as they prevail in different hours, render the same individual mind more unlike to itself, if its states or tendencies alone, and not its substantial identity, be considered, than the minds perhaps of any two human beings, at the same moment. But still, as we have seen, even from the analogy of the material world, which was supposed to furnish a powerful objection, it is no argument against the absolute identity of the mind, that it exists in different states, however opposite, any more than it is an argument against the absolute identity of a body, that it, at one

moment has a tendency to one particular motion,—at another moment a tendency to a different motion,—and at another moment, no tendency whatever to motion of any kind ; since, in all these cases, as much as in the varying affections of the mind, there is a change of state, with absolute identity of substance.

LECTURE XV.

The negative Evidence of Mental Identity continued : — Opinion of Mr. Locke respecting Identity—Source of his Paradox on this Subject ; and Reflections suggested by it.

My last Lecture, Gentlemen, was employed in considering the general objection to the identity of the mind, drawn from the contrasts of its momentary feelings,—an objection founded on the supposed incompatibility of diversity of any kind with strict and absolute identity. After the very full examination which it received, it is unnecessary to dwell at any length on the other objection, drawn from changes of general character in the same individual, at different periods of life, or in different circumstances of fortune ; since precisely the same arguments, from the general analogy of nature, which disprove the supposed incompatibility in the one case, disprove it also in the other. Even matter itself, we have seen, may, without the slightest alteration of its identity, exist in an almost infinite variety of states ; having, in some of these states, qualities precisely the reverse of those which it exhibited in other states, attracting what it repelled, repelling what it attracted ; and it surely is not more wonderful, therefore, that the same identical

mind, also, should, in relation to the same objects, in different circumstances, be susceptible of an almost infinite variety of affections,—approving, disapproving, choosing, repenting. If we knew nothing more of the relations of two billiard balls to each other, than the phenomena which they exhibit in the moment of their mutual percussion, when they have been forced, within a certain degree of close vicinity, by the impelling stroke, we should regard them, from their instant reciprocal repulsion, as having a natural tendency to fly off from each other; and, in the state in which they then exist, there is no question that such is their tendency—a tendency, which, in these circumstances, may be regarded as their genuine physical character. Yet we have only to imagine the two balls placed at a distance from each other, like that of the remotest planet from the sun; and in traversing the whole wide void that intervenes, what a different physical character would they exhibit, in their accelerating tendency toward each other, as if their very nature were lastingly changed! If there are, then, such opposite tendencies in the same bodies, without any loss of identity, why may not the same minds also have *their* opposite tendencies, when, in like manner, removed, as it were, into circumstances that are different, loving, perhaps, what they hated before, and hating what they loved? If the change of state be not temporary, but permanent, the resulting affections may well be supposed to be permanently different; and, indeed, if they be different at all, cannot but be permanently different, like the altered state. It is as little wonderful, therefore, when any lasting change of circumstances is taken into account, that the same individual should no longer exhibit the same intellectual and moral appearances, as that matter, in its

different states, should no longer exhibit the same obvious phenomena; attracting, perhaps, the very bodies which it before repelled, and repelling the very bodies which it before attracted, and attracting and repelling with differences of force, and consequent differences of velocity in the bodies around, the varieties of which it would require all the powers of our arithmetic to compute.

When we observe, then, in a mind, which we have long known and valued, any marks of altered character, — when, for example, in one who, by the favour, or rather by the cruelty of Fortune, has been raised, from a situation comparatively humble, to sudden distinctions of power and opulence, we see the neglect of all those virtues, the wider opportunity of exercising which seemed to him formerly the chief, or even the only advantage that rendered such distinctions desirable; the same frivolous vanity which before appeared to him ridiculous in others, and the same contemptuous insolence of pride which before appeared to him contemptible; a craving and impatient desire of greater wealth, merely because he has no longer any use to make of it, unless, indeed, that it has become more necessary to his avarice than it ever was before to his want; and a gay and scornful indifference to miseries, that are still sometimes able to force themselves upon his view, the relief of which, that once seemed to him so glorious a privilege, would now not require of him even the scanty merit of sacrificing a single superfluity: — when we perceive this contrast, and almost say within ourselves, Is this the same being? we should remember that the influence of fortune is not confined to the mere trapping, which it gives or takes away; that it operates within as much as without; and that, accordingly, in the case now imagined by

us, the new external circumstances have been gradually modifying the mind, in the same manner as new external circumstances of a different kind modify the bodies which happen to be placed in them, — not affecting their identity, but altering their state; and that, if we could distinguish, as accurately, the series of changes which take place in mind, as we can distinguish those which take place in matter, we should not be more astonished, that, in circumstances of rare and unhappy occurrence, a disposition once apparently generous is generous no more, than we are to observe a body, attracted to another body, at one distance, and afterwards repelled from it, in consequence merely of a change of their mutual position, — a change so very slight as to be altogether undistinguishable by our senses.

I have dwelt on this question at much greater length than I should otherwise have done, however interesting it truly is as a question of metaphysics, because I was anxious to obviate a prejudice which is very closely connected with this point, and which, most unfortunately for the progress of the philosophy of mind, has given a wrong bias to the speculations of many very enlightened men. No one, I am aware, can be so sincerely sceptical as to doubt, even for a moment, his own identity, as one continued sentient being, whatever ingenious sophistry he may urge in support of the paradox which he professes to hold. But still, while the compatibility of diversity with absolute identity, as now explained to you, was but obscurely felt, — a compatibility which, to the best of my remembrance, no writer, with whom I am acquainted, has attempted to illustrate, — the difficulty of reconciling the growth or decay of knowledge, and all the successive contrasts or changes of feeling, which our

sensations, thoughts, emotions, exhibit, with the permanent indivisible unity of the same sentient principle, has been sufficient, in many cases, to produce a vague and almost unconscious tendency to materialism, in minds that would not otherwise have been easily led away by a system so illusive; and, where it has not produced this full effect, it has at least produced a tendency, in many cases, to encumber the simple theory of the mental phenomena with false and unnecessary hypotheses, very much akin to those of absolute materialism. Without this absolute materialism, mind must still be left, indeed, as the ultimate subject of sensation, and the difficulty truly remains the same; but it is contrived to complicate, as much as possible, the corporeal part of the process, which precedes this ultimate mental part, by the introduction of phantasms, or other shadowy films, animal spirits, vibratiuncles, or other sensorial motions, that a wider room may thus be left for a play of changes, and the difficulty of accounting for the diversity of sensations be less felt, when it is to be divided among so many substances in almost constant motion; while the attention is, at the same time, led away from the immediate mental change, in which alone the supposed difficulty consists, to the mere corpuscular changes, in which there is no supposed difficulty.

It is a general law of our internal, as well as of our external perceptions, that we distinguish most readily what is least complicated. In a chorus of many voices a single discordant voice may escape even a nice discriminator of musical sounds, who would have detected instantly the slightest deviation from the melody of a simple air. A juggler, when he wishes to withdraw a single card, is careful to present to us many; and, though the card which he withdraws is truly before

our eyes at the very moment at which he separates it from the pack, we do not discover the quick motion which separates it, however suspiciously watchful we may be, because our vigilance of attention is distracted by the number of cards which he suffers to remain. It is not because the card which he removes is not before us, then, that we do not observe the removal of it, but because it is only one of many that are before us. It is precisely the same in those complicated material processes, with which some theorists encumber the simple phenomena of the mind. The difficulty which seems, to them, to attend any diversity whatever in a substance that is identical, simple, indivisible, and incapable of addition or subtraction, remains, indeed, ultimately in all its force, and would strike us equally, if this supposed difficulty were to be considered alone. But many hypothetical vibrations, or other motions, are given to our consideration at the same moment, that glance upon our mental view like the rapid movements of the juggler's hand. We, therefore, do not feel so painfully as before, a difficulty which occupies our attention only in part; and, in our feeble estimation of things, to render a difficulty less visible to us, is almost like a diminution of the difficulty itself.

For obviating this tendency to materialism, or to what may be considered almost as a species of semi-materialism, in the physiology of the mind, it is of no small consequence to have accurate views of the nature of our mental identity. Above all, it is of importance, that we should be sufficiently impressed with the conviction, that absolute identity, far from excluding every sort of diversity, is perfectly compatible, as we have seen, with diversities that are almost infinite. When we have once obtained a clear view of this compatibility, as independent of any additions or subtractions

of substance, we shall no longer be led to convert our simple mental operations into long-continued processes, of which the last links only are mental and the preceding imaginary links corporeal; as if the introduction of all this play of hypotheses were necessary for saving that identity of mind, which we are perhaps unwilling to abandon altogether; for it will then appear to us not more wonderful, that the mind, without the slightest loss of identity, should at one moment begin to exist in the state which constitutes the sensation of the fragrance of a rose, and at another moment should begin to exist in the state which constitutes the sensation of the sound of a flute, or in the opposite states of love and hate, rapture and agony,—than that the same body, without the slightest change of its identity, should exist, at one moment, in the state which constitutes the tendency to approach another body, and at another moment in the opposite state which constitutes the tendency to fly from it, or that, with the same absolute identity, it should exist, at different moments, in the different states which constitute the tendencies to begin motion in directions that are at right angles to each other, so as to begin to move in the one case north, in the other east, and to continue this motion, at one time with one velocity, at other times with other velocities, and consequently, with other tendencies to motion that are infinite, or almost infinite.

With these remarks, I conclude what appears to me to be the most accurate view of the question of our personal, or, as I have rather chosen to term it, our mental identity. We have seen, that the belief of this arises, not from any inference of reasoning, but from a principle of intuitive assent, operating universally, immediately, irresistibly, and therefore justly

to be regarded as essential to our constitution, — a principle exactly of the same kind as those to which reasoning itself must ultimately be traced, and from which alone its consecutive series of propositions can derive any authority. We have seen that this belief, though intuitive, is not involved in any one of our separate feelings, which, considered merely as present, might succeed each other, in endless variety, without affording any notion of a sentient being, more permanent than the sensation itself; but that it arises, on the consideration of our feelings as successive, in the same manner as our belief of proportion, or relation in general, arises, not from the conception of one of the related objects or ideas, but only after the previous conception of both the relative and the correlative; or rather, that the belief of identity does not arise as subsequent, but is involved in the very remembrance which allows us to consider our feelings as successive; since it is impossible for us to regard them as successive without regarding them as feelings of our sentient self; — not flowing, therefore, from experience or reasoning, but essential to these, and necessarily implied in them, — since there can be no result of experience, but to the mind which remembers that it has previously observed, and no reasoning but to the mind which remembers that it has felt the truth of some proposition, from which the truth of its present conclusion is derived. In addition to this positive evidence of our identity, we have seen that the strongest objections which we could imagine to be urged against it, are, as might have been expected, sophistical, in the false test of identity which they assume, — that the contrasts of momentary feeling, and even the more permanent alterations of general character, in the same individual, afford no valid argu-

ment against it; since, not in mind only, but in matter also, — from a superficial and partial view of the phenomena of which the supposed objections are derived, — the most complete identity of substance, without addition of any thing, or subtraction of any thing, is compatible with an infinite diversity of states.

I cannot quit the subject of identity, however, — though, from my belief of its importance, I may already, perhaps, have dwelt upon it too long, — without giving you some slight account of the very strange opinions of Mr. Locke on the subject. I do this, both because some notice is due to the paradoxes, — even though they be erroneous, — of so illustrious a man, and because I conceive it to be of great advantage, to point out to you occasionally the illusions which have been able to obscure the discernment of those bright spirits which nature sometimes, though sparingly, grants, to adorn at least that intellectual gloom, which even they cannot irradiate; that, in their path of glory, seem to move along the heavens by their own independent light, as if almost unconscious of the darkness below, but cannot exist there for a moment, without shedding, on the feeble and doubtful throngs beneath, some faint beams of their own incommunicable lustre. It is chiefly as connected with these eminent names, that fallacy itself becomes instructive, when simply exhibited, — if this only be done, not from any wish to disparage merits that are far above the impotence of such attempts, but with all the veneration which is due to human excellence, united as it must ever be to human imperfection. “Even the errors of great men,” it has been said, “are fruitful of truths;” and though they were to be attended with no other advantage, this one at least they must always have, that they teach us how very pos-

sible it is for man to err; thus lessening at once our tendency to slavish acquiescence in the unexamined opinions of others, and,—which is much harder to be done—lessening also, as much as it is possible for any thing to lessen, the strong conviction which we feel, that we are ourselves unerring. The first, and most instructive lesson, which man can receive, when he is capable of reflection, is to think for himself; the second, without which the first would be comparatively of little value, is to reject, in himself, that infallibility which he rejects in others.

The opinion of Locke, with respect to personal identity, is, that it consists in consciousness alone; by which term, in its reference to the past, he can mean nothing more than perfect memory. As far back as we are conscious, or remember, so far, and no farther, he says, are we the same persons. In short, what we do not remember, we, as persons, strictly speaking, never did. The identity of that which remembers, and which is surely independent of the remembrance itself, is thus made to consist in the remembrance, that is confessedly fugitive; and, as if that every possible inconsistency might be crowded together in this single doctrine, the same philosopher, who holds, that our personal identity consists in consciousness, is one of the most strenuous opponents of the doctrine, that the soul always thinks, or is conscious; so that, in this interval of thought, from consciousness to consciousness,—since that which is essential to identity is, by supposition, suspended, the same identical soul, as far as individual personality is concerned, is not the same identical soul, but exists when it does not exist.

“There is another consequence of this doctrine,” says Dr. Reid, “which follows no less necessarily,

though Mr. Locke probably did not see it. It is, that a man may be, and at the same time not be, the person that did a particular action.

“Suppose a brave officer to have been flogged when a boy at school, for robbing an orchard, to have taken a standard from the enemy in his first campaign, and to have been made a general in advanced life. Suppose also, which must be admitted to be possible, that when he took the standard, he was conscious of his having been flogged at school; and that, when made a general, he was conscious of his taking the standard, but had absolutely lost the consciousness of his flogging.

“These things being supposed, it follows from Mr. Locke’s doctrine, that he who was flogged at school is the same person who took the standard; and that he who took the standard is the same person who was made a general. Whence it follows, if there be any truth in logic, that the general is the same person with him who was flogged at school. But the general’s consciousness does not reach so far back as his flogging; therefore, according to Mr. Locke’s doctrine, he is not the person who was flogged. Therefore the general is, and at the same time is not, the same person with him who was flogged at school.”¹

But it is needless to deduce consequences from this very strange paradox; since its author himself has done this, most freely and fully, and often with an air of pleasantry, that but for the place in which we find it, as forming a part of a grave methodical essay on the understanding, would almost lead us to think, that he was himself smiling, in secret, at his own doctrine, and propounding it with the same mock

¹ Reid’s *Essays on the Intellectual Powers*, Essay iii. chap. vi.

solemnity with which the discoverer of Laputa has revealed to us all the secrets of the philosophy of that island of philosophers.

He allows it to follow, from his doctrine, that, if we remembered at night, and never but at night, one set of the events of our life; as, for instance, those which happened five years ago; and never, but in the day time, that different set of events which happened six years ago: this "day and night man," to use his own phrase, would be two as distinct persons as Socrates and Plato; and, in short, that we are truly as many persons as we have, or can be supposed to have, at different times, separate and distinct remembrances of different series of events. In this case, indeed, he makes a distinction of the visible man, who is the same, and of the person who is different.

"But yet possibly, it will still be objected," he says, "suppose I wholly lose the memory of some parts of my life, beyond a possibility of retrieving them, so that perhaps I shall never be conscious of them again; yet am I not the same person that did those actions, had those thoughts that I once was conscious of, though I have now forgot them? To which I answer, that we must here take notice what the word *I* is applied to; which, in this case, is the man only. And the same man being presumed to be the same person, *I* is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable consciousness at different times, it is past doubt the same man would at different times make different persons; which, we see, is the sense of mankind in the solemnest declaration of their opinions; human laws not punishing the mad man for the sober man's actions, nor the sober man for what the mad man did,

thereby making them two persons: which is somewhat explained by our way of speaking in English, when we say such an one is not himself, or is beside himself; in which phrases it is insinuated, as if those who now, or at least first used them, thought that self was changed, the self-same person was no longer in that man."¹

Such is the doctrine of a philosopher, whose intellectual excellence was unquestionably of the highest rank, and whose powers might be considered as entitling him to exemption, at least, from those gross errors which far weaker understandings are capable of discovering, if even this humble relative privilege had not been too great for man. He contends, that our remembrance of having done a certain action, is not merely to us, the rememberers, the evidence by which we believe that we were the persons who did it, but is the very circumstance that makes us personally to have done it,—a doctrine, which, if the word person were to be understood in the slightest degree in its common acceptation, would involve, as has been justly said, an absurdity as great as if it had been affirmed, that our belief of the creation of the world actually made it to have been created.

If we could suppose Mr. Locke to have never thought on the subject of personal identity, till this strange doctrine, and its consequences, were stated to him by another, it may almost be taken for granted, that he would not have failed instantly to discover its absurdity, as a mere verbal paradox; and yet, after much reflection on the subject, he does not perceive that very absurdity, which he would have discovered, but for reflection. Such is the strange nature of our

¹ Essay concerning Human Understanding, b. ii. c. xxvii. sect. 20.

intellectual constitution. The very functions that, in their daily and hourly exercise, save us from innumerable errors, sometimes lead us into errors, which, but for them, we might have avoided. The philosopher is like a well armed and practised warrior, who, in his helmet and coat of mail, goes to the combat with surer means of victory than the ill-disciplined and defenceless mob around him, but who may yet sometimes fall where others would have stood, unable to rise and extricate himself, from the encumbrance of that very armour to which he has owed the conquests of many other fields.

What, then, may we conceive to have been the nature of the illusion which could lead a mind like that of Mr. Locke to admit, after reflection, an absurd paradox, and all its absurd consequences, which, before reflection, he would have rejected?

It is to be traced chiefly, I conceive, to a source which is certainly the most abundant source of error in the writings and silent reflections of philosophers, especially of those who are gifted with originality of thought,—the ambiguity of the language which they use, when they retain a word with one meaning, which is generally understood in a different sense; the common meaning, in the course of their speculations, often mingling insensibly with their own, and thus producing a sort of confusion, which incapacitates them from perceiving the precise consequences of either of the two. Mr. Locke gives his own definition of the word person, as comprised in the very consciousness which he supposes to be all that is essential to personal identity; or at least he speaks of consciousness so vaguely and indefinitely, as to allow this meaning of his definition to be present to his own mind, as often as he thought of personality. "To

find," he says, "wherein personal identity consists, we must consider what *person* stands for; which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places, which it does only by that consciousness which is inseparable from thinking."¹

Having once given this definition of a person, there can be no question that personal identity, in his sense, is wherever consciousness is, and only where consciousness is. But this is true of a person, only as defined by him; and, if strictly analyzed, means nothing more, than that consciousness is wherever consciousness is,—a doctrine on which, perhaps, he could not have thought it worth his while to give any very long commentary. It appears more important, however, even to himself, and worthy of the long commentary which he has given it, because, in truth, he cannot refrain from still keeping, in his own mind, some obscure impression of the more common meaning of the term, and extending to a person, as thus commonly understood, what is true only of a person as defined by him. It is as if some whimsical naturalist should give a definition of the word *animal*, exclusive of every winged creature, and should then think that he was propounding a very notable and subtle paradox, in affirming that no animal is capable of rising for a few minutes above the surface of the earth. It would be a paradox, only inasmuch as it might suggest, to those who heard it, a meaning different from that of the definition; and, but for this misconception, which the author of it himself might share, would be so insignificant a truism as not to deserve even the humblest of all praise, that of amusing absurdity.

¹ Essay concerning Human Understanding, b. ii. c. xxvii. sect. 9.

When, in such cases as this, we discover that singular inconsistency, which is to be found even in the very excellence of every thing that is human, — the perspicacity which sees, at an immeasurable distance, in the field of inquiry, what no other eye has seen, and which yet, in the very objects which it has grasped, is unable to distinguish what is visible to common eyes, are we to lament the imperfection of our mental constitution which leaves us liable to such error? Or, as in other instances, in which, from our incapacity of judging rightly, we are tempted at first to regret the present arrangement of things, are we not rather to rejoice that we are so constituted by nature? If man had not been formed to err, in the same manner as he is formed to reason and to know, that perfect system of faculties, which excluded error, must have rendered his discernment too quick, not to seize instantly innumerable truths, the gradual discovery of which, by the exercise of his present more limited faculties, has been sufficient to give glory and happiness to whole ages of philosophical inquiry. If, indeed, the field had been absolutely boundless, he might still have continued to advance, as at present, though with more gigantic step, and more searching vision, and found no termination to his unlimited career. But the truths which relate to us physically, on this bounded scene of things in which we are placed, numerous as they are, are still in some measure finite, like that scene itself; and the too rapid discoveries, therefore, of a few generations, as to the most important properties of things, would have left little more for the generations which were to follow, than the dull and spiritless task of learning what others had previously learned, or of teaching what themselves had been taught.

Philosophy is not the mere passive possession of

knowledge: it is, in a much more important respect, the active exercise of acquiring it. We may truly apply to it what Pascal says of the conduct of life in general. "We think," says he, "that we are seeking repose, and all which we are seeking is agitation." In like manner, we think that it is truth itself which we seek, when the happiness which we are to feel most strongly, is in the mere search; and all that would be necessary, in many cases, to make the object of it appear indifferent, would be to put it fairly within our grasp.

"Our hopes, like towering falcons, aim
At objects in an airy height;
But all the pleasure of the game
Is afar off to view the flight."

What little value do we set on discoveries that have been long familiar to us, though their own essential value must still continue the same. Even on the whole mass of knowledge, that has been gradually and slowly transmitted to us, we reflect with little interest, unless as it may lead to something yet unknown; and the result of a single new experiment, which bears no proportion to the mass to which it is added, will yet be sufficient to rouse and delight every philosopher in Europe. It is a very shrewd remark of a French writer, in reference to the torpor which the most zealous inquirer feels as to every thing which he knows, and his insatiable avidity for every thing which he does not know, that "if Truth were fairly to show herself as she is, all would be ruined; but it is plain, that she knows very well of how great importance it is that she should keep herself out of sight."

If we were to acquire, by an unhappy foresight, the knowledge which is not yet ours, it is very evident that we must soon regard it in the same manner as

the knowledge which we have already acquired. The charm of novelty, the delights of gratified curiosity, would not be for us. The prey would be at our feet; and it would be vain, therefore, to expect that ardour of soul which is kindled amid the hopes and the fears, the tumult and the competition of the chase.

"If man were omnipotent, without being God," says Rousseau, "he would be a miserable creature; he would be deprived of the pleasure of desiring; and what privation would be so difficult to be borne!" It may be said, at least with equal truth, that if man were omniscient, without the other perfections of the Divinity, he would be far less happy than at present. To infinite benevolence, indeed, accompanied with infinite power, a corresponding infinity of knowledge must afford the highest of all imaginable gratifications, by its subservience to those gracious plans of good which are manifested in the universe, and which, in making known to us the existence of the Supreme Being, have made him known to us, as the object of grateful love and adoration. But if, in other respects, we were to continue as at present,—with our erring passions, and moral weaknesses of every sort,—to be doomed to have nothing to learn, would be a punishment, not a blessing. In such circumstances, if they were to continue for ever, the annihilation of our intellectual being would not be an evil so great as the mere extinction of our curiosity, and of all the delights and consolations which it affords, not merely when we gratify it, but when we are merely seeking to gratify it.

Else wherefore burns,
In mortal bosoms, this unquenched hope,
That breathes from day to day sublimer things,
And mocks possession? Wherefore darts the mind,
With such resistless ardour, to embrace

Majestic forms, impatient to be free,
 Proud of the strong contention of her toils,
 Proud to be daring? —¹

Why departs she wide²

From the dull track and journey of her times,
 To grasp the good she knows not? In the field
 Of things which may be, in the spacious field
 Of science, potent arts, or dreadful arms,
 To raise up scenes in which her own desires
 Contented may repose, — when things which are
 Pall on her temper like a twice-told tale.³

It is sufficient that we are endowed with powers of discovery. Our gratitude is due to Heaven for the gift; and the more due for that gracious wisdom which has known how to limit the powers which it gave, so as to produce a greater result of good by the very limitation. Our prejudices, which sometimes forbid reasoning, and the errors, to which our imperfect reasoning often leads us, we should consider, when all their remote relations are taken into account, as indirect sources of happiness; and though we may wish, and justly wish, to analyze them, and to rise above their influence, — for, without this exertion, and consequent feeling of progress, on our part, they would be evil rather than good, — we must not forget, that it is to them we owe the luxury, which the immediate analysis affords, and the acquisition of the innumerable truths, which the prevalence of these errors, in past ages, has left to be discovered by the ages which succeed.

In this, and in every thing which relates to man,

¹ Pleasures of Imagination, (first form of the Poem,) b. i. 166-171, 173-175.

² — Why departs the soul
 Wide from the track. — *Orig.*

³ Pleasures of Imagination, (second form of the Poem,) b. i. 213-220.

Nature has had in view, not the individual or the single generation only, but the permanent race. She has, therefore, not exhausted her bounty on any one period of the long succession; but, by a provision, which makes our very weakness instrumental to her goodness, she has given to all that distant and ever brightening hope, which, till we arrive at our glorious destination,

" Leads from goal to goal,
And opens still, and opens on the soul."

With enough of mental vigour to advance still farther in the tracks of science that are already formed, and to point out new tracks to those who are to follow, we have enough of weakness to prevent us from exploring and exhausting what is to occupy, in the same happy search, the millions of millions that are to succeed us. Truth itself, indeed, will always be progressive; but there will still, at every stage of the progress, be something to discover, and abundance to confute. "In twenty-four thousand years," to borrow the prediction of a very skilful prophet, — "In twenty-four thousand years, there will arise philosophers, who will boast that they are destroying the errors which have been reigning in the world for thirty thousand years past; and there will be people who will believe, that they are then only just beginning to open their eyes."

In these remarks, on the nature of our varied consciousness, and on the unity and identity of the mind in all its varieties, we have considered the mental phenomena in their general aspect. We have now to consider them as arranged in kindred classes, — or rather to attempt the difficult task of the classification itself.

To this I shall proceed in my next lecture.

LECTURE XVI.

On the Classification of the Phenomena of Mind.

AFTER considering the phenomena of the mind in general, we are now to proceed to consider them in the separate classes in which they may be arranged. The phenomena themselves, indeed, are almost infinite, and it might seem, on first reflection, a very hopeless task to attempt to reduce, under a few heads, the innumerable feelings which diversify almost every moment of our life. But to those who are acquainted with the wonders which classification has performed, in the other sciences, the task, difficult as it is, will still seem not absolutely hopeless; though, in one respect, its difficulty will be more highly estimated by them than by others; — since they only, who know the advantage of the fixed and definite nature of the objects of classification in other sciences, can feel how much greater the obstacles must be to any accurate arrangement, in a science of which the objects are indefinite and complex, incapable of being fixed for a moment in the same state, and destroyed by the very effort to grasp them. But in this, as in other instances, in which Nature has given us difficulties with which to cope, she has not left us to be wholly overcome; or if we must yield, she has at least armed us for so vigorous a struggle that we gain additional intellectual strength even in being vanquished. “*Studiorum salutarium, etiam citra effectum, salutaris tractatio est.*” If she has placed us in a labyrinth, she has at the same time furnished us with a clue, which may guide us, not, indeed, through all its dark and intricate

windings, but through those broad paths which conduct us into day. The single power by which we discover resemblance or relation in general, is a sufficient aid to us, in the perplexity and confusion of our first attempts at arrangement. It begins by converting thousands, and more than thousands, into one; and reducing, in the same manner, the numbers thus formed, it arrives at last at the few distinctive characters of those great comprehensive tribes, on which it ceases to operate, because there is nothing left to oppress the memory or the understanding. If there had been no such science as chemistry, who could have ventured to suppose that the innumerable bodies, animate and inanimate, on the surface of our globe, and all which we have been able to explore in the very depths of the earth itself, are reducible, and even in the imperfect state of the science, have been already reduced to a few simple elements? The science of mind, as it is a science of analysis, I have more than once compared to chemistry, and pointed out to you and illustrated its various circumstances of resemblance. In this, too, we may hope the analogy will hold,—that, as the innumerable aggregates, in the one science, have been reduced and simplified, the innumerable complex feelings in the other will admit of a corresponding reduction and simplification.

The classes which we form, in the mental as well as in the material universe, depend, as you cannot but know, on certain relations which we discover in the phenomena; and the relations according to which objects may be arranged, are of course various, as they are considered by different individuals in different points of view. Some of these relations present themselves immediately, as if to our very glance; others are discoverable only after attentive reflection;

and though the former, merely as presenting themselves more readily, may seem, on that account, better suited for the general purpose of arrangement, it is not the less true, that the classification, which approaches nearest to perfection, is far from being always that which is founded on relations that seem, at first sight, the most obvious. The rudest wanderer in the fields may imagine, that the profusion of blossoms around him, — in the greater number of which he is able himself to discover many striking resemblances, — may be reduced into some order of arrangement. But he would be little aware, that the principle, according to which they are now universally classed, has relation, not to the parts which appear to him to constitute the whole flower, but to some small part of the blossom, which he does not perceive at the distance at which he passes it, and which scarcely attracts his eye when he plucks it from the stem.

To our mental classifications the remark is equally applicable. In these, too, the most obvious distinctions are not always those which answer best the purposes of systematic arrangement. The phenomena of the mind are only the mind itself existing in certain states; and as many of these states are in their nature agreeable, and others disagreeable, this difference, which is to the sentient being himself the most important of all differences, may be supposed to afford the most obvious principle of classification. What is pleasant, what is painful, are perhaps the first classes, which the infant has formed long before he is capable of distinguishing them by a name; and the very imbecility of idiotism itself, to which nothing is true or false, or right or wrong, — and to which there is no future beyond the succeeding moment, — is yet

capable of making this primary distinction, and of regulating, according to it, its momentary desires.

The love of pleasure is man's eldest born,
 Born in his cradle, living to his tomb.
 Wisdom,—her younger sister, though more grave,
 Was meant to minister, not to dethrone¹
 Imperial Pleasure, queen of human hearts.²

The distribution, which we should be inclined to make, of our mental phenomena, according to this obvious principle, would be into those which are pleasing, those which are painful, and those which are neither painful nor pleasing. But, however obvious this first distinction may seem, as a principle of arrangement, the circumstances, on which the differences depend, are so very indefinite, that the distinction,—though it may be useful to have it in view, in its most striking and permanent cases,—cannot be adopted as the basis of any regular system. To take the mere pleasures and pains of sense, for example,—to what intelligible division could we reduce these, which are not merely fugitive in themselves, but vary, from pain to pleasure, and from pleasure to pain, with a change of their external objects so slight often as to be scarcely appreciable, and, in many cases, even when the external objects have continued exactly the same? How small, and how variable a boundary separates the warmth which is pleasing from the heat which pains! A certain quantity of light is grateful to the eye. Increase it; it becomes not indifferent,—though that would be a less change,—but absolutely painful; and, if the eye be inflamed, even the small quantity of light, which was agreeable before, and which seemed,

¹ Instead of "not to dethrone," the original has "and not to mar."

² Night Thoughts, viii. 595-599.

therefore, to admit of being very safely classed among the sources of pleasure, is now converted into a source of agony. Since it is impossible, therefore, to fix the limits of pain and pleasure, and every affection or state of mind, agreeable, disagreeable, or indifferent, may, by a very trifling change of circumstance, be converted into an opposite state, it is evident that any division, founded on this vague and transient distinction, must perplex and mislead us, in our attempts to systematize the almost infinite diversities of thought and feeling, rather than give us any aid in the arrangement.

The great leading division of the mental phenomena which has met with most general adoption by philosophers, is into those which belong to the understanding and those which belong to the will;—a division which is very ancient, but, though sanctioned by the approbation of many ages, very illogical; since the will, which, in this division, is nominally opposed to the intellect, is so far from being opposed to it in reality, that, even by the asserters of its diversity, it is considered as exercising, in the intellectual department, an empire almost as wide as in the department allotted to itself. We reason, and plan, and invent, at least as voluntarily, — as we esteem, or hate, or hope, or fear. How many emotions are there, too, which cannot, without absolute torture, be forced into either division! To take only a few instances out of many, — to what class are we to reduce grief, joy, admiration, astonishment, which certainly are not phenomena of the mere understanding, and which, though they may lead indirectly to desires or volitions, have nothing in themselves that is voluntary, or that can be considered as in any peculiar degree connected with the will. The division of the mental

phenomena into those which belong to the understanding, and those which belong to the will, seems, therefore, to be as faulty as would be the division of animals into those which have legs and those which have wings; since the same animals might have both legs and wings, and since whole tribes of animals have neither one nor the other.

Another division of the phenomena of mind, similar to the former, and of equal antiquity, since it corresponds with the very ancient division of philosophy into the contemplative and the active, is into those which belong to the intellectual powers, and those which belong to the active powers. "*Philosophia et contemplativa est et activa; spectat simulque agit.*" I must confess, however, that this division of the mental phenomena, as referable to the intellectual and the active powers of the mind, though it has the sanction of very eminent names, appears to me to be faulty, exactly in the same manner as the former, which, indeed, it may be considered almost as representing, under a change of name. Its parts are not opposed to each other, and it does not include all the phenomena which it should include. Is mere grief, for example, or mere astonishment, to be referred to our intellectual or to our active powers? I do not speak of the faculties, which they may or may not call into action; but of the feelings themselves, as present phenomena or states of the mind. And, in whatsoever manner we may define the term *active*, is the mind more active, when it merely desires good, and fears evil, when it looks with esteem on virtue, and with indignation, or disgust and contempt, on vice, than when it pursues a continued train of reasoning, or fancy, or historical investigation? — when, with Newton, it lays down the laws of planetary motion,

and calculates in what exact point of the heavens any one of the orbs, which move within the immense range of our solar system, will be found to have its place at any particular moment, one thousand years hereafter; when, with Shakspeare, it wanders beyond the universe itself, calling races of beings into existence, which nature never knew, but which nature might almost own—or when, with Tacitus, it unrolls slowly, year after year, that dreadful reality of crimes and sufferings, which even dramatic horror, in all its license of wild imagination, can scarcely reach,—the long unvarying catalogue of tyrants, and executioners, and victims that return thanks to the gods and die, and accusers rich with their blood, and more mighty, as more widely hated, amid the multitudes of prostrate slaves still looking whether there may not yet have escaped some lingering virtue, which it may be a merit to destroy, and having scarcely leisure to feel even the agonies of remorse in the continued sense of the precariousness of their own gloomy existence? When it thus records the warning lessons of the past, or expatiates in fields, which itself creates, of fairy beauty or sublimity, or comprehends whole moving worlds within its glance, and calculates and measures infinitude—the mind is surely active, or there are no moments in which it is so. So little, indeed, are the intellectual powers opposed to the active, that it is only when some intellectual energy coexists with desire, that the mind is said to be active, even by those who are unaccustomed to analytical inquiries, or to refinements of metaphysical nomenclature. The love of power, or the love of glory, when there is no opportunity of intellectual exertion, may, in the common acceptation of the word, be as passive as tranquillity itself. The passion is

active only when, with intellectual action, it compares means with ends, and different means with each other, and deliberates, and resolves, and executes. Chain some revolutionary usurper to the floor of a dungeon, his ambition may be active still, because he may still be intellectually busy in planning means of deliverance and vengeance; and, on his bed of straw, may conquer half the world. But, if we could fetter his reason and fancy, as we can fetter his limbs, what activity would remain, though he were still to feel that mere desire of power or glory, which, though usually followed by intellectual exertions, is itself, as prior to these exertions, all that constitutes ambition as a passion? There would indeed still be, in his mind, the awful elements of that force which bursts upon the world with conflagration and destruction; but though there would be the thunder, it would be the thunder sleeping in its cloud. To will, is to act with desire; and, unless in the production of mere muscular motion, it is only intellectually that we can act. To class the active powers, therefore, as distinct from the intellectual, is to class them, as opposed to that, without which, as active powers, they cannot even exist.

It may perhaps be contended, that, though the mental phenomena, usually ranked under this head, are not immediately connected with action, they may yet deserve this generic distinction, as leading to action indirectly, — and if they led, in any peculiar sense, to action, however indirectly, the claim might be allowed. But, even with this limited meaning, it is impossible to admit the distinction asserted for them. In what sense, for example, can it be said, that grief and joy, which surely are not to be classed under the intellectual powers of the mind, lead to action even indirectly, more than any other feelings, or states, in

which the mind is capable of existing? We may, indeed, act when we are joyful or sorrowful, as we may act when we perceive a present object, or remember the past; but we may also remain at rest, and remain equally at rest in the one case as in the other. Our intellectual energies, indeed, even in this sense, as indirectly leading to action, are, in most cases, far more active than sorrow, even in its very excess of agony and despair; and in those cases in which sorrow does truly lead to action, as when we strive to remedy the past, the mere regret which constitutes the sorrow is not so closely connected with the conduct which we pursue, as the intellectual states of mind that intervened, — the successive judgments, by which we have compared projects with projects, and chosen at last the plan which, in relation to the object in view, has seemed to us, upon the whole, the most expedient.

If, then, as I cannot but think, the arrangement of the mental phenomena, as belonging to two classes of powers, the intellectual and the active, be at once incomplete, and not accurate, even to the extent to which it reaches, it may be worth while to try, at least, some other division, even though there should not be any very great hope of success. Though we should fail in our endeavour to obtain some more precise and comprehensive principle of arrangement, there is always some advantage gained, by viewing objects according to new circumstances of agreement or analogy. We see, in this case, what had long passed before us unobserved, while we were accustomed only to the order and nomenclature of a former method; for, when the mind has been habituated to certain classifications, it is apt, in considering objects, to give its attention only to those properties which are essential to the classification, and to overlook, or at

least comparatively to neglect, other properties equally important and essential to the very nature of the separate substances that are classed, but not included in the system as characters of generic resemblance. The individual object, indeed, when its place in any system has been long fixed and familiar to us, is perhaps conceived by us less as an individual, than as one of a class of individuals that agree in certain respects; and the frequent consideration of it, as one of a class, must fix the peculiar relations of the class more strongly in the mind, and weaken proportionally the impression of every other quality that is not so included. A new classification, therefore, which includes, in its generic characters, those neglected qualities, will, of course, draw to them attention which they could not otherwise have obtained; and the more various the views are which we take of the objects of any science, the juster consequently, because the more equal, will be the estimate which we form of them. So truly is this the case, that I am convinced that no one has ever read over the mere terms of a new division in a science, however familiar the science may have been to him, without learning more than this new division itself, without being struck with some property or relation, the importance of which he now perceives most clearly, and which he is quite astonished that he should have overlooked so long before.

I surely need not warn you, after the observations which I made in my introductory lectures, on the Laws and Objects of Physical Inquiry in general, that every classification has reference only to our mode of considering objects; and that, amid all the varieties of systems which our love of novelty and our love of distinction, or our pure love of truth and order, may introduce, the phenomena themselves, whether accu-

rately or inaccurately classed, continue unaltered. The mind is formed susceptible of certain affections. These states or affections we may generalize more or less; and, according to our generalization, may give them more or fewer names. But whatever may be the extent of our vocabulary, the mind itself, — as independent of these transient designations as He who fixed its constitution, — still continues to exhibit the same unaltered susceptibilities which it originally received; as the flowers, which the same divine Author formed, spring up in the same manner, observing the same seasons, and spreading to the sun the same foliage and blossoms, whatever be the system and the corresponding nomenclature according to which botanists may have agreed to rank and name their tribes. The great Preserver of nature has not trusted us with the dangerous power of altering a single physical law which he has established, though he has given us unlimited power over the language which is of our own creation. It is still with us, as it was with our common sire in the original birthplace of our race. The Almighty presents to us all the objects that surround us, wherever we turn our view; but he presents them to us only that we may give them names. Their powers and susceptibilities they already possess, and we cannot alter these, even as they exist in a single atom.

It may, perhaps, seem absurd, even to suppose, that we should think ourselves able to change, by a few generic words, the properties of the substances which we have classed; and if the question were put to us, as to this effect of our language in any particular case, there can be no doubt that we should answer in the negative, and express astonishment that such a question should have been put. But the illusion is

not the less certain, because we are not aware of its influence; and indeed it could no longer be an illusion, if we were completely aware of it. It requires, however, only a very little reflection on what has passed in our own minds, to discover, that when we have given a name to any quality, that quality acquires immediately, in our imagination, a comparative importance, very different from what it had before; and though nature in itself be truly unchanged, it is, ever after, relatively to our conception, different. A difference of words is, in this case, more than a mere verbal difference. Though it be not the expression of a difference of doctrine, it very speedily becomes so. Hence it is, that the same warfare, which the rivalries of individual ambition, or the opposite interests, or supposed opposite interests, of nations have produced in the great theatre of civil history, have been produced, in the small but tumultuous field of science, by the supposed incompatibility of a few abstract terms; and, indeed, as has been truly said, the sects of philosophers have combated, with more persevering violence, to settle what they mean by the constitution of the world, than all the conquerors of the world have done to render themselves its masters.

Still less, I trust, is it necessary to repeat the warning already so often repeated, that you are not to conceive that any classification of the states or affections of the mind, as referable to certain powers or susceptibilities, makes these powers any thing different and separate from the mind itself, as originally and essentially susceptible of the various modifications, of which these powers are only a shorter name. And yet what innumerable controversies in philosophy have arisen, and are still frequently

arising, from this very mistake, strange and absurd as the mistake may seem. No sooner, for example, were certain affections of the mind classed together, as belonging to the will, and certain others, as belonging to the understanding,—that is to say, no sooner was the mind, existing in certain states, denominated the understanding, and in certain other states denominated the will,—than the understanding and the will ceased to be considered as the same individual substance, and became immediately, as it were, two opposite and contending powers, in the empire of mind, as distinct as any two sovereigns, with their separate nations under their control; and it became an object of as fierce contention to determine, whether certain affections of the mind belonged to the understanding, or to the will, as in the management of political affairs, to determine, whether a disputed province belonged to one potentate or to another. Every new division of the faculties of the mind, indeed, converted each faculty into a little independent mind,—as if the original mind were like that wonderful animal, of which naturalists tell us, that may be cut into an almost infinite number of parts, each of which becomes a polypus, as perfect as that from which it was separated. The only difference is, that those who make us acquainted with this wonderful property of the polypus, acknowledge the divisibility of the parent animal; while those, who assert the spiritual multiplicity, are at the same time assertors of the absolute indivisibility of that which they divide.

After these warnings, then, which, I trust, have been almost superfluous, let us now endeavour to form some classification of the mental phenomena, without considering whether our arrangement be similar or

dissimilar to that of others. In short, let us forget, as much as possible, that any prior arrangements have been made, and think of the phenomena only. It would, indeed, require more than human vision to comprehend all these phenomena of the mind, in our gaze, at once,—

To survey,
Stretch'd out beneath us, all the many tracts
Of passion and opinion,—like a waste
Of sands, and flowery lawns, and tangling woods,
Where mortals roam bewild'rd.¹

But there is a mode of bringing all this multitude of objects within the sphere of our narrow sight, in the same manner as the expanse of landscape, over which the eye would be long in wandering,—the plains, and hills, and woods, and waterfalls,—may be brought by human art within the compass of a mirror, far less than the smallest of the innumerable objects which it represents.

The process of gradual generalization, by which this reduction is performed, I have already explained to you. Let us now proceed to avail ourselves of it.

All the feelings and thoughts of the mind, I have already frequently repeated, are only the mind itself existing in certain states. To these successive states our knowledge of the mind, and consequently our arrangements, which can comprehend only what we know, are necessarily limited. With this simple word *state*, I use the phrase *affection of mind* as synonymous to express the momentary feeling, whatever it may be — with this difference only, that the word *affection* seems to me better suited for expressing that momen-

¹ The Pleasures of Imagination, b. iv. 9–13.

tary feeling, when considered as an effect,—the feeling itself as a state of the mind, and the relation which any particular state of mind may bear to the preceding circumstances, whatever they may be, that have induced it.

Our states of mind, however, or our affections of mind, are the simplest terms which I can use for expressing the whole series of phenomena of the mind in all their diversity, as existing phenomena, without any mixture of hypothesis as to the particular mode in which the successive changes may be supposed to arise.

When we consider, then, the various states or affections of the mind, which form this series, one circumstance of difference must strike us, that some of them arise immediately, in consequence of the presence of external objects,—and some, as immediately, in consequence of certain preceding affections of the mind itself. The one set, therefore, are obviously the result of the laws both of matter and of mind,—implying, in external objects, a power of affecting the mind, as well as, in the mind, a susceptibility of being affected by them. The other set result from the susceptibilities of the mind itself, which has been formed by its divine Author to exist in certain states, and to exist in these in a certain relative order of succession. The affections of the one class arise, because some external object is present; the affections of the other class arise, because some previous change in the state of the mind has taken place.

To illustrate this distinction by example. Let us suppose ourselves, in walking across a lawn, to turn our eyes to a particular point, and to perceive there an oak. That is to say, the presence of the oak, or rather of the light reflected from it, occasions a cer-

tain new state of the mind, which we call a sensation of vision, — an affection which belongs to the mind alone, indeed, but of which we have every reason to suppose, that the mind, of itself, without the presence of light, would not have been the subject. The peculiar sensation, therefore, is the result of the presence of the light reflected from the oak; and we perceive it, because the mind is capable of being affected by external things. But this affection of the mind, which has an external object for its immediate cause, is not the only mental change which takes place. Other changes succeed it, without any other external impression. We compare the oak with some other tree which we have seen before, and we are struck with its superior magnificence and beauty; — we imagine how some scene more familiar to us would appear, if it were adorned with this tree, and how the scene before us would appear, if it were stripped of it; — we think of the number of years, which must have passed, since the oak was an acorn; — and we moralize, perhaps, on the changes which have taken place in the little history of ourselves and our friends, and, still more, on the revolutions of kingdoms, and the birth and decay of a whole generation of mankind, while it has been silently and regularly advancing to maturity, through the sunshine and the storm. Of all the variety of states of the mind, which these processes of thought involve, the only one which can be ascribed to an external object as its direct cause, is the primary perception of the oak: the rest have been the result, not immediately of any thing external, but of preceding states of the mind; — that particular mental state, which constituted the perception of the oak, being followed immediately by that different state which constituted the remembrance of some tree observed

before, and this by that different state which constituted the comparison of the two ; and so successively, through all the different processes of thought enumerated. The mind, indeed, could not, without the presence of the oak,—that is to say, without the presence of the light which the oak reflects,—have existed in the state which constituted the perception of the oak. But as little could any external object, without this primary mental affection, have produced, immediately, any of those other states of the mind which followed the perception. There is thus one obvious distinction of the mental phenomena as in relation to their causes, external or internal ; and whatever other terms of subdivision it may be necessary to employ, we have, at least, one boundary, and know what it is we mean, when we speak of the external and internal affections of the mind.

The first stage of our generalization, then, has been the reduction of all the mental phenomena to two definite classes, according as the causes, or immediate antecedents, of our feelings are themselves mental or material. Our next stage must be the still further reduction of these, by some new generalizations of the phenomena of each class.

The former of these classes,—that of our external affections of the mind,—is indeed so very simple, as to require but little subdivision. The other class, however,—that of the internal affections or states of the mind,—comprehends so large a proportion of the mental phenomena, and these so various, that, without many subdivisions, it would be itself of little aid to us in our arrangement.

The first great subdivision, then, which I would form, of the internal class, is into our intellectual states of mind, and our emotions. The latter of these classes

comprehends all, or nearly all, the mental states, which have been classed, by others, under the head of active powers. I prefer, however, the term *emotions*, partly because I wish to avoid the phrase, *active powers*,—which, I own, appears to me awkward and ambiguous, as opposed to other powers, which are not said to be passive; and partly, for reasons before mentioned, because our intellectual states or energies, far from being opposed to our active powers, are, as we have seen, essential elements of their activity,—so essential, that, without them, these never could have had the name of active; and because I wish to comprehend, under the term, various states of the mind, which cannot, with propriety, in any sense, be termed active,—such as grief, joy, astonishment,—and others which have been commonly, though, I think, inaccurately, ascribed to the intellectual faculties,—such as the feelings of beauty and sublimity,—feelings which are certainly much more analogous to our other emotions,—to our feelings of love or awe, for example,—than to our mere remembrances or reasonings, or to any other states of mind which can strictly be called intellectual. I speak at present, it must be remembered, of the mere feelings produced by the contemplation of beautiful or sublime objects,—not of the judgment which we form of objects, as more or less fit to excite these feelings; the judgment being truly intellectual, like all our other judgments; but being, at the same time, as distinct from the feelings which it measures, as any other judgment from the external or internal objects which it compares.

The exact meaning of the term *emotion*, it is difficult to state in any form of words,—for the same reason which makes it difficult, or rather impossible, to explain, what we mean by the term thought, or the

terms sweetness or bitterness. What can be more opposite than pleasure and pain? the real distinction of which is evidently familiar, not to man only, but to every thing that lives; and yet, if we were to attempt to show in what their difference consists, or to give a verbal definition of either, we should find the task to be no easy one. Every person understands what is meant by an emotion, at least as well as he understands what is meant by any intellectual power; or, if he do not, it can be explained to him only, by stating the number of feelings to which we give the name, or the circumstances which induce them. All of them, indeed, agree in this respect, that they imply peculiar vividness of feeling, with this important circumstance to distinguish them from the vivid pleasures and pains of sense,—that they do not arise immediately from the presence of external objects, but subsequently to the primary feelings, which we term sensations or perceptions. Perhaps, if any definition of them be possible, they may be defined to be vivid feelings, arising immediately from the consideration of objects, perceived, or remembered, or imagined, or from other prior emotions. In some cases,—as in that of the emotion which beauty excites,—they may succeed so rapidly to the primary perception, as almost to form a part of it. Yet we find no great difficulty of analysis, in separating the pleasing effect of beauty from the perception of the mere form and colour, and can very readily imagine the same accurate perception of these, without the feeling of beauty, as we can imagine the same feeling of beauty to accompany the perception of forms and colours very different.

Sure the rising sun,
O'er the cerulean convex of the sea,

With equal brightness, and with equal warmth,
 Might roll his fiery orb; nor yet the soul
 Thus feel her frame expanded, and her powers
 Exulting in the splendour she beholds,
 Like a young conquerer moving through the pomp
 Of some triumphal day. When, join'd at eve,
 Soft murmuring streams, and gales of gentlest breath
 Melodious Philomela's wakeful strain
 Attempter, could not man's discerning ear,
 Through all its tones, the sympathy pursue;
 Nor yet this breath divine of nameless joy
 Steal through his veins, and fan the awaken'd heart,
 Mild as the breeze, yet rapturous as the song.¹

Our emotions, then, even in the cases in which they seem most directly to coexist with perception, are still easily distinguishable from it; and, in like manner, when they arise from the intellectual states of memory, imagination, comparison, they are equally distinguishable from what we remember, or imagine, or compare. They form truly a separate order of the internal affections of the mind,—as distinct from the intellectual phenomena, as the class, to which they both belong, is distinguishable from the class of external affections that arise immediately from the presence of objects without.

LECTURE XVII.

Classification of the Phenomena of Mind:—Class 1.—External States.

IN my last Lecture, Gentlemen, I endeavoured to prepare the way, for arranging, in certain classes, that

¹ Pleasures of Imagination, book iii. 464–478.

almost infinite variety of phenomena which the mind exhibits, pointing out to you the peculiar difficulty of such a classification, in the case of phenomena so indefinite and fugitive as those of the mind, and the nature of that generalizing principle of analogy or resemblance, on which every classification, whether of the material or mental phenomena, must alike proceed. I then took a slight view of the primary, leading, divisions of the phenomena of the mind, which have met with most general adoption, — the very ancient division of them, as of two great departments, belonging to the understanding and the will, — and the similar division of them, as referable to two classes of powers, termed the intellectual and active powers of the mind. I explained to you the reasons which led me to reject both these divisions, as at once incomplete, from not comprehending all the phenomena, and inaccurate, from confounding even those phenomena, which they may truly be considered as comprehending.

After rejecting these, it became necessary to attempt some new arrangement, especially as we found reason to believe that some advantage could scarcely fail to arise from the attempt itself, even though it should fail as to its great object; and we therefore proceeded to consider and arrange the phenomena, as nearly as possible, in the same manner as we should have done, if no arrangement of them had ever been made before.

In thus considering them, the first important distinction which occurred to us related to their causes, or immediate antecedents, as foreign to the mind, or as belonging to the mind itself; a distinction too striking to be neglected as a ground of primary division. Whatever that may be which feels and thinks, it has been formed to be susceptible of certain changes of state, in consequence of the mere presence of ex-

ternal objects, or at least of changes produced in our mere bodily organs, which, themselves, may be considered as external to the mind; and it is susceptible of certain other changes of state, without any cause external to itself, one state of mind being the immediate result of a former state of mind, in consequence of those laws of succession of thoughts and feelings, which He, who created the immortal soul of man, as a faint shadow of his own eternal spirit, has established in the constitution of our mental frame. In conformity with this distinction, we made our first division of the phenomena of the mind, into its external and internal affections; the word affection being used by me as the simplest term for expressing a mere change of state, induced in relation to the affecting cause, or the circumstances, whatever they may have been, by which the change was immediately preceded.

The class of internal affections, — by far the more copious and various of the two, — we divided into two great orders, our intellectual states of mind, and our emotions, words which are, perhaps, better understood before any definition is attempted of them than after it, but which are sufficiently intelligible without definition, and appear to exhaust completely the whole internal affections of the mind. We have sensations or perceptions of the objects that affect our bodily organs; these I term the sensitive or external affections of the mind: we remember objects, we imagine them in new situations, we compare their relations; these mere conceptions or notions of objects and their qualities, as elements of our general knowledge, are what I have termed the intellectual states of the mind: we are moved with certain lively feelings, on the consideration of what we thus perceive, or remember, or imagine, or compare, with feelings, for example,

of beauty, or sublimity, or astonishment, or love, or hate, or hope, or fear; these, and various other vivid feelings analogous to them, are our emotions.

There is no portion of our consciousness which does not appear to me to be included in one or other of these three divisions. To know all our sensitive states or affections, all our intellectual states, all our emotions, is to know all the states or phenomena of the mind;

Unde animus scire incipiat, quibus inchoet orsa
Principiis seriem rerum tenuemque catenam
Mnemosyne: Ratio unde, rudi sub pectore tardum
Augeat imperium, et primum mortalibus ægris
*Ira, dolor, metus, et curæ nascantur inanes.*¹

It must not be conceived, however, that, in dividing the class of internal affections of the mind into the two distinct orders of intellectual states and emotions, and in speaking of our emotions as subsequent in their origin, I wish it to be understood that these never are combined, at the same moment, in that sense of combination, as applied to the mind, which I have already explained too frequently to need again to define and illustrate it. On the contrary, they very frequently concur; but, in all cases in which they do concur, it is easy for us to distinguish them by reflective analysis. The emotion of pity, for example, may continue in the mind, while we are intellectually planning means of relief for the sufferer who occasioned it; but, though the pity and the reasoning coexist, we have little difficulty in separating them in our reflection. It is the same with all our vivid desires, which not merely lead to action, but accompany it. The sage, who, in the silence of

¹ Gray, de Principiis Cogitandi, lib. i. 1-5.

midnight, continues still those labours which the morning began, watching, with sleepless eye, the fate of some experiment that almost promises to place within his hand the invisible thread which leads into the labyrinths of nature, or exploring those secrets of the mind itself, by the aid of which he is afterwards to lay down rules of more accurate philosophizing, and to become the legislator of all who think, is not cheered, in his toils, merely by occasional anticipations of the truths that await his search. The pleasure of future discovery is, as it were, a constant light, that shines upon him and warms him; and, in the very moments in which he watches, and calculates, and arranges, there are other principles of his nature in as lively exercise as his powers of observation and reasoning. The warrior at the head of an army, which he has often led from victory to victory, and which he is leading again to new fields of conflict, does not think of glory only in the intervals of meditation or action. The passion which he obeys, is not a mere inspiring genius, that occasionally descends to rouse or invigorate: It is the soul of his continued existence,—it marches with him, from station to station,—it deliberates with him in his tent,—it conquers with him in the field,—it thinks of new successes, in the very moment of vanquishing; and even at night, when his body has yielded at last to the influence of that fatigue of which it was scarcely conscious while there was room for any new exertion by which fatigue could be increased, and when all the anxieties of military command are slumbering with it, the passion that animates him, more active still, does not quit him as he rests, but is wakeful in his very sleep, bringing before him dreams that almost renew the tumults and the toils of the day. Our

emotions, then, may coexist with various sensations, remembrances, reasonings,—in the same manner as these feelings, sensitive or intellectual, may variously coexist with each other. But we do not think it less necessary to class our sensations of vision as different from our sensations of smell, and our comparison, as itself different from the separate sensations compared, because we may, at the same moment, both see and smell a rose, and may endeavour to appreciate the relative amount of pleasure which that beautiful flower thus doubly affords. In like manner, our intellectual states of mind, and our emotions, are not the less to be considered as distinct classes, because any vivid passion may continue to exist together with those intellectual processes of thought which it originally prompted, and which, after prompting, it prolongs.

In all these cases, however, in which an emotion coexists with the results of other external or internal influences, it is still easy to distinguish its subsequence to the feelings that preceded it. Pity, for example, as in the case to which I have before alluded, may coexist with a long train of thoughts that are busily occupied in endeavouring to relieve most effectually the misery which is pitied; but the misery must have been itself an object of our thought, before the state of mind which constitutes pity could have been induced. The emotion which we feel, on the contemplation of beauty, may continue to coexist with our mere perception of the forms and colours of bodies; but these forms and colours must have been perceived by us, before the delightful emotion could have been originally felt. In short, our emotions, though, like the warmth and radiance, which seem to accompany the very presence of the sun, rather than to flow from

it, they may seem in many cases to be a part of the very feelings which excite them, are yet, in every instance, as truly secondary to these feelings, as the light which beams on us, on the surface of our earth, is subsequent to the rising of the great orb of day.

As yet we have advanced but a short way in our generalization of the mental phenomena; though, as far as we have advanced, our division seems sufficiently distinct and comprehensive. The mind is susceptible of certain external affections, of certain intellectual modifications which arise from these, and of certain emotions which arise from both; that is to say, it is capable of existing in certain states, the varieties of which correspond with these particular designations. We see, we remember, or compare, what we have seen;—we regard what we see, or remember, or compare, with desire or with aversion; and of these, or of states analogous to these, the whole of life, sensitive, intellectual, or moral, is composed. Every minute, therefore, of every hour, in all its variety of occupation, is but a portion of this complicated tissue. Let us suppose ourselves, for example, looking down from an eminence, on the prospect beneath. On one side all is desolation,—and we see perhaps, at a little distance, some half-roofless hovel, as miserable as the waste immediately around it, which has scarcely the appearance of a dwelling for any living thing, but seems rather, as if Nature herself had originally placed it there, as a part of the general sterility and ruggedness. On the other side, all is plenty and magnificence; and we see, amid lawns and wooded banks, a mansion as different in aspect as if the beings that inhabited it were of a different race,—which, as a part of the scene where it is placed, accords so harmoniously with the whole, that, without it, the

scene itself, would appear incomplete, and almost incongruous, as if stripped of some essential charm. To view these separate dwellings, and all the objects around them, if no other feeling arose, would be to have a series of external or sensitive affections only. But it is scarcely possible for us to view them, without the instant rise of those intellectual states of mind which constitute comparison, and of those affections of another order, which constitute the emotions of admiration and desire in the one case, and in the other the emotions that are opposite to admiration and desire, together perhaps with some of those bitter emotions which the sight of misery makes in every breast that is not unworthy of so sacred an influence.

In this example, our intellectual states of mind, and our emotions, have for their objects things really existing without ; but the external affections of our senses, though the most permanent, and usually the most vivid, and therefore the best remembered of all the sources of our internal feelings, are far from being necessary, in every instance, to the production of these. There is a constant, or almost constant, succession of internal affections of mind, of thoughts and emotions following thoughts and emotions, which, even though we were to be rendered incapable of a single new sensation,—if our animal life could in these circumstances be long protracted,—would still preserve to us also that intellectual and moral existence, which is the only life that is worthy of the name. The knowledge which we acquire from without, lives in us within ; and, in such a case as that which I have now imagined, our memory would be to us in some measure every sense which we had lost creating to us again that very world which had vanished before us. If we could compare, and love,

or hate, only things actually present, we should be far from the maturity and perfection of an infant's mind, and should scarcely be advanced to the rank of idiocy, which, limited as it is in its range, still comprehends, in its little sphere of foresight and memory, some few moments at least of the past, and even a moment or two of the future. It is with the future and with the past, that, intellectually and morally, we are chiefly conversant. To these high capacities of our being, the subjects, which can exercise our powers and feelings, however distant in time or place, are as it were everlastingly present,—like that mysterious eternal *now*, of which theologians speak,—in which past, present, and future are considered as, in every moment of every age, alike visible to the omniscient glance of the Divinity. We love the virtues, of which we read, with the same sort of emotion with which we love the virtues that are mingling with us in the present hour. The patriot of the most remote age,—of whom we know nothing but the historical tale of his voluntary perils or sufferings in some generous cause,—is like the friend of our familiar intercourse; and the sacrifices, that wrought the happiness of millions of beings who are now not merely unknown to us, but of whom not a single name is remembered on the earth, awake a sort of veneration that is almost combined with gratitude, as if we were in the presence of a personal deliverer. It is the same with absolute unreality; not merely with that which no longer exists, but with that which never had existence. We are struck with the beauty of what we only imagine, in the same manner, though perhaps not with the same liveliness of feeling, as we are struck with the beauty of external things. Our emotions, then, however dependent they

may have been originally, are now no longer dependent on these external things. They may arise from memory or imagination, as readily as from perception; but when they arise from memory or imagination, they are as truly distinguishable from what we remember and imagine, as they are distinguishable from our perceptions of mere forms and colours, and other sensible qualities, when they arise from what we perceive.

To have arranged all the varieties of feelings of which the mind is susceptible, in the three great divisions to which our arrangement as yet has extended,—though it is unquestionably to have made some advance in our generalization,—is yet to have made only a small part of the necessary progress; since each of these three orders comprehends almost innumerable phenomena, which require the aid of more minute division. In the class of our external affections, indeed, this subdivision is very simple and easy; since our separate organs of sense furnish, of themselves, a very evident ground of distinction. But the two orders of our internal affections have no such obvious and tangible distinction, to serve as the basis of their subdivisions. They admit, however,—as I trust we shall find,—of distinctions which, though not equally obvious, are almost equally definite; and require only a very little reflection, to be understood as clearly as the organic relations, according to which we distinguish our sensations of sound, or smell, or sight. It is not my intention, however, to proceed, at present, to the consideration of these subdivisions; since the nature of the more minute arrangement will, I conceive, be better understood, when we come to treat of each separate order fully, than they could be now by the mere enumeration of a few names,

of the propriety of which as mere names, and, still more, of the propriety of the arrangement which they involve, you could not be expected to form any accurate judgment, without a fuller elucidation.

All which I must request you, then, at present to keep in remembrance, is the primary division, which we have made, of the different states of the mind into two great classes, and the secondary division which we have made of one of these classes into its two very comprehensive orders. You will remember, then, that the various affections, of which the mind is susceptible, are either external, as they arise from causes without the mind, or internal, as they arise from previous states of the mind itself;—that of these internal affections, some are mere conceptions or notions of former feelings, or of objects, and of the qualities or relations of objects, as remembered or variously combined or compared,—results of different susceptibilities of our intellectual constitution, to which different names have been given, conception, memory, imagination, abstraction, reason, and other synonymous terms;—that these internal affections or states of the mind, which I have denominated its intellectual states, are distinctly separable, in our reflective analysis, from certain vivid feelings that may arise instantly in the mind on the consideration of these mere intellectual results, or on the perception of objects without,—feelings of admiration, love, desire, and various other analogous or opposite states of the mind;—but that there is such an order of vivid feelings, which arise, in many cases, on the mere consideration of what we perceive, or remember, or imagine, or compare; and that this order is what I wish to be distinguished by the name of *emotions*.

According to this division, therefore, of the mental

phenomena, into those which are of external and those which are of internal origin, and the subdivision which we have made of this latter class, I shall proceed to consider, *1st*, The external powers or susceptibilities of the mind ; *2dly*, The intellectual powers or susceptibilities of the mind ; and, *3dly*, Its susceptibilities of emotion,—beginning with that class, which we have every reason to suppose to be first, in the actual order of development, —the powers or susceptibilities of the mind, in its immediate relation to its own bodily organs.

Certain states of our bodily organs are directly followed by certain states or affections of our mind ; certain states or affections of our mind are directly followed by certain states of our bodily organs. The nerve of sight, for example, is affected in a certain manner ; vision, which is an affection or state of the mind, is its consequence. I will to move my hand ; the hand obeys my will so rapidly, that the motion, though truly subsequent, seems almost to accompany my volition, rather than to follow it. In conformity with the definition before given of power and susceptibility, the one as implying a reference to something consequent, the other a reference to something antecedent, I should be inclined to consider the sensation which follows the presence of an external object as indicating a mental susceptibility of being so affected ; the production of muscular motion by the will, as indicating a mental power. But the terms are of less consequence, if you understand fully the distinction that is implied in them ; and you may be allowed still, in compliance with the general language, to speak of the power or faculty of sensation or perception, if you mean nothing more, as often as you use these terms, than that the mind is affected in a certain manner,

and, therefore, must have had a previous susceptibility of being thus affected whenever certain changes have previously taken place in that nervous system with which it is connected.

In considering the susceptibilities of the mind, I comprehend, under its external affections, all those phenomena or states of the mind which are commonly termed sensations; together with all our internal organic feelings of pleasure or pain that arise from states of the nervous system, as much as our other sensations. Many of these are commonly ranked under another head, that of appetites,—such as hunger, thirst, the desire of repose, or of change of muscular position, which arises from long-continued exertion; the oppressive anxiety which arises from impeded respiration, and various other desires, arising from bodily uneasiness. But these appetites evidently admit of being analyzed into two distinct elements,—a pain of a peculiar species, and a subsequent desire of that which is to relieve the pain; states of mind, of which one may immediately succeed the other, but which are unquestionably as different in themselves as if no such succession took place,—as different as the pleasure of music is from the mere desire of enjoying it again, or as the pain of excessive heat, in burning, from the subsequent desire of coolness. The pain, which is one element of the appetite, is an external affection of the mind, to be classed with our other sensations; the succeeding desire, which is another element of it, is an internal affection of the mind, to be classed with our other emotions of desire. We might have felt the same pain of hunger, though we had not been aware that it arose from want of food, and consequently could not have felt any desire of food, but merely the general desire of relief which attends every

disagreeable sensation. We might have felt the same uneasiness, which we term thirst, though we had not been aware that it would be relieved by a draught of any beverage; and the same pain of impeded respiration or fatigue, though nature had not led us instinctively, in the one case, to perform the muscular actions necessary for expiration and inspiration; in the other, to change our posture, and thus give repose to the wearied limbs. Whatever be the organic states which occasion these painful feelings, that are elementary in our appetites, there can be no doubt, that some organic affections precede them, as truly as some affection of an external organ precedes the pain of a burn, or the painful temporary blindness when we are dazzled with excessive light. And though, in the case of the appetite, we may give the same name to the pain, and to the desire of that which is to relieve the pain; or rather, may give one name to the combination of the two feelings,—which is not to be wondered at, where the two feelings are so universally and so immediately successive,—this error, or rather this mere abbreviation of language, is no reason that we should consider the elementary pain itself as different, in kind, from our other pains, that have not merely half a term to express them, but a whole undivided word of their own. The pain, of which the appetite desires the relief, is a sensation as much as any other internal bodily pain which we feel,—a state or affection of the mind, arising, immediately and solely, from a state or affection of the body, — which is the only definition that can be given of a sensation.

The pain of hunger and thirst, then, and, in general, every internal pain arising from a state of the bodily organs, and distinct from the subsequent desires which they occasion, are as truly sensations as any

other sensations ; and the desires that follow these particular sensations, are as truly desires as any other desires of which we have the consciousness. We may, indeed, if we resolve to invent a new name for those particular desires that terminate immediately in the relief of bodily pain, or the production of bodily pleasure, give to such desires the name of appetites ; but it is surely a very simple analysis only that is necessary to separate, from the desire of relief, the feeling of the pain which we wish to be relieved ; since it is very evident that the pain must have existed primarily before any such desire could be felt.

That the various species of uneasiness, which are elementary parts of our appetites, recur, at intervals in which there is some degree of regularity, does not alter their nature, when they do recur, so as to render a peculiar arrangement necessary for including them. The mental states, which constitute the uneasiness that is felt, recur thus at intervals, not from any thing peculiar in the mind itself, the phenomena of which alone we are considering, but because the body is only at intervals in the state which precedes or induces those peculiar mental affections. If, instead of the two or three periods at which the appetite of hunger recurs, the nervous system were, one hundred times in the day, at intervals the most irregular, in that state which is immediately followed by the feeling of hunger, the painful feeling, and the consequent desire of food which has been found to relieve it, would of course be felt one hundred times in the day. The regularity, therefore, of the recurrence of this state of the nerves, is a phenomenon which belongs to the consideration of the physiologist of the body, not of the physiologist of the mind, whose immediate office is finished when he can trace any particular feeling of the mind to some

affection of our organic frame, as its invariable antecedent ; and who, knowing, therefore, that the feeling of pain in any of our appetites, is the effect or result of some organic affection, is not surprised that it should not recur when that organic affection has not previously taken place, — any more than he is surprised that we do not enjoy the fragrance of roses or violets, when there are no particles of odour to be inhaled by us ; or do not listen to songs and choral harmonies, when there is no vibration to be transmitted to the auditory nerve. It is at certain regular periods that the full light of day, and the twilight of morning and evening, are perceived by us. But we do not think it necessary, on this account, to give any peculiar name to these visual perceptions, to distinguish them from others less regular, because we know that the reason of the periodic recurrence of these perceptions is, that the various degrees of sunshine, which produce them, exist only at such intervals. We are hungry, when the nerves of the stomach are in a certain state ; we perceive the sun, when the organ of vision is in a certain state. It is as little wonderful, that we should not have the feeling of hunger except when the nerves of the stomach are in this state, as that we should not have the perception of the meridian sun when the sun itself is beneath our horizon.

Since the mere pains of appetite, however, most important as they truly are for the ends which they immediately answer, are yet of little importance in relation to our general knowledge, it is unnecessary to dwell on them at length. But I cannot quit the consideration of them, without remarking that admirable provision which the gracious Author of Nature has made by them, for the preservation not of our being merely, but of our well-being — of that health

and vigour, without which, a frail and feverish existence, at least in its relation to this earthly scene, would be of little value. The daily waste of the body requires daily supply to compensate it ; and if this supply be neglected, or be inadequate—or, on the other hand, if it be inordinately great, disease is the necessary consequence. To preserve the medium, therefore, or at least to prevent any very great deviation from it, He who planned our feelings and faculties, as well as our bodily frame, has made it painful for us to omit what is so important to life ; and painful also to prolong the supply in any great proportion, after the demands of nature have been adequately satisfied. If food had afforded gratification only as relieving the pain of hunger, these natural boundaries of appetite would have required no aid from moral or physical lessons of temperance. But the indulgence of Nature, in conferring on us the sense of taste, and making food a luxury as well as a relief, we abuse, as we abuse her other kindnesses. The pleasures of this most intemperate of senses may lead, in some degree, beyond the due point of supply, the greater number of mankind ; and may drive, to excesses more injurious, all those herds of unthinking sensualists who prefer the sickly enjoyment of an hour to the health and virtue, and intellectual as well as physical comfort, of more frugal repasts. Yet even to them Nature points out, in the feeling of satiety, where intemperance begins, or where it has already begun ; and if they persist, notwithstanding this feeling, how much more would they be in danger of overloading the powers of life, if there had been no such feeling of growing uncasiness to repress the avidity of insatiable indulgence!

“ Though a man knew,” says Dr. Reid, “ that his

life must be supported by eating, reason could not direct him when to eat, or what—how much, or how often. In all these things, appetite is a much better guide than our reason. Were reason only to direct us in this matter, its calm voice would often be drowned in the hurry of business, or the charms of amusement. But the voice of appetite rises gradually, and at last becomes loud enough to call off our attention from any other employment.”¹

If, indeed, the necessary supply were long neglected, the morbid state of the body which would ensue, though no pain of actual hunger were to be felt, would convince at last the sufferer of his folly. But the providence of our gracious Creator has not trusted the existence of man to the dangerous admonition of so rough a monitor, which might, perhaps, bring his folly before him, only when it was too late to be wise. The pain of hunger—that short disease, if it may be so termed, which it is in our power so speedily to cure, prevents diseases that more truly deserve the name. Between satiety on one side, and want on the other, the stream of health flows tranquilly along, which, but for these boundaries, would speedily waste itself and disappear; as the most magnificent river, which, if dispersed over a boundless plain, would flow almost into nothing, owes its abundance and majestic beauty to the very banks that seem to confine its waters within too narrow a channel.

Beside those particular feelings of bodily uneasiness, which, as attended with desire, constitute our appetites, there are other affections of the same class, which, though not usually ranked with our external sensations or perceptions, because we find it difficult

¹ On the Active Powers, Essay III. c. 1.

to ascribe them to any local organ, are unquestionably to be arranged under the same head; since they are feelings which arise, as immediately and directly, from a certain state of a part of the nervous system, as any of the feelings which we more commonly ascribe to external sense. Of this kind is that muscular pleasure of alacrity and action, which forms so great a part of the delight of the young of every species of living beings, and which is felt, though in a less degree, at every period of life, even the most advanced; or which, when it ceases in age, only gives place to another species of muscular pleasure, that which constitutes the pleasure of ease—the same species of feeling which doubles to every one the delight of exercise, by sweetening the repose to which it leads, and thus making it indirectly, as well as directly, a source of enjoyment.

In treating of what have been termed the acquired perceptions of vision, which are truly what give to vision its range of power, and without which the mere perception of colour would be of little more value than any other of the simplest of our sensations, I shall have an opportunity of pointing out to you some most important purposes to which our muscular feelings are instrumental; and in the nicer analysis which I am inclined to make of the perceptions commonly ascribed to touch,—if my analysis be accurate,—we shall find them operating at least as powerfully. At present, however, I speak of them merely as sources of animal pleasure or pain, of pleasure during moderate exercise and repose, and of pain during morbid lassitude, or the fatigue of oppressive and unremitted labour.

The pleasure which attends good health, and which is certainly more than mere freedom from pain, is a

pleasure of the same kind. It is a pleasure, however, which, like every other long-continued bodily pleasure, we may suppose to be diminished by habitual enjoyment; and it is, therefore, chiefly, on recovery from sickness, when the habit has been long broken by feelings of an opposite kind, that we recognise what it must originally have been; if, indeed, it be in our power to separate, completely, the mere animal pleasure from those mingling reflex pleasures which arise from the consideration of past pain and the expectation of future delight. To those among you who know what it is to have risen from the long captivity of a bed of sickness, I need not say, that every function is, in this case, more than mere vigour; it is a happiness but to breathe and to move; and not every limb merely, but almost every fibre of every limb, has its separate sense of enjoyment. "What a blessed thing it is to breathe the fresh air!" said Count Struensee, on quitting his dungeon, though he was quitting it only to be led to the place of execution, and cannot, therefore, be supposed to have felt much more than the mere animal delight.

He does not scorn it, who, imprison'd long
In some unwholesome dungeon, and a prey
To sallow sickness, which the vapours dank
And clammy of his dark abode have bred,
Escapes at last to liberty and light:
His cheek recovers soon its healthful hue;
His eye relumines its extinguish'd fires:
He walks, he leaps, he runs—is wing'd with joy,
And riots in the sweets of every breeze.¹

On these mere animal gratifications, however, I need not dwell any longer. There is much more to

¹ Cowper's Task, book i.

interest our curiosity, in the sensations and perceptions which more frequently go under those names; to the consideration of which I shall proceed in my next lecture.

LECTURE XVIII.

Of the more definite external Affections of Mind.

IN my Lecture, yesterday, after some further elucidation of the triple division which we formed of the mental phenomena, as external or sensitive affections of the mind, intellectual states of the mind, and emotions, — I proceeded to consider the first of these divisions, of which the characteristic distinction is, that the phenomena included in it have their causes or immediate antecedents external to the mind itself. In this division, I comprehended, together with the feelings which are universally ascribed to certain organs of sense, many feelings, which, though unquestionably originating in states of our bodily organs, as much as our other sensations, are yet commonly ranked as of a different order, — such as our various appetites, or rather that elementary uneasiness which is only a part, but still an essential part, of our appetites, and which is easily distinguishable from the mere desire, which is the other element; since, however rapid the succession of them may be, we are yet conscious of them as successive. The particular uneasiness, it is evident, must have been felt as a sensation before the desire of that which is to relieve the uneasiness could have arisen. To the same class,

too, I referred the various organic feelings which constitute the animal pleasure of good health, when every corporeal function is exercised in just degree; and, in a particular manner, our muscular feelings, whether of mere general lassitude or alacrity; or those fainter differences of feelings which arise in our various motions and attitudes, from the different muscles that are exercised, or from the greater or less contraction of the same muscles. These muscular feelings, though they may be almost unnoticed by us, during the influence of stronger sensations, are yet sufficiently powerful, when we attend to them, to render us, independently of sight and touch, in a great measure sensible of the position of our body in general, and of its various parts; and, comparatively indistinct as they are, they become,—in many cases, as in the acquired perceptions of vision for example, and equally, too, as I conceive, in various other instances, in which little attention has been paid to them by philosophers,—elements of some of the nicest and most accurate judgments which we form.

It is, however, to that widest and most important order of our external affections, which comprehends the feelings more commonly termed sensations, and universally ascribed to particular organs of sense, that we have now to proceed. In these, we find the rude elements of all our knowledge, the material on which the mind is ever operating, and without which it seems to us almost impossible to conceive that it could ever have operated at all, or could, even in its absolute inactivity, have been conscious of its own inert existence.

This order of our external feelings comprehends all those states of mind, however various they may be, which immediately succeed the changes of state, pro-

duced, in any of our organs of sense, by the presence of certain external bodies. The mental affections are themselves,—as I have said,—commonly termed sensations; but we have no verb, in our language, which exactly denotes what is expressed in the substantive noun. To feel is, in its two senses, either much more limited or much more general; being confined, in its restricted meaning, to the sensations of one organ, that of touch,—and, as a more general word, being applicable to all the varieties of our consciousness, as much as to those particular varieties which are immediately successive to the affections of our organs of sense. We are said, in this wider use of the term, to feel indignation, love, surprise, as readily as we are said to feel the warmth of a fire, or the coldness of snow.

In defining our sensations to be those mental affections which are immediately successive to certain organic affections, produced by the action of external things, it is very evident that I have made two assumptions,—first, of the existence of external things, that affect our organs of sense; and, secondly, of organs of sense that are affected by external things;—unless, indeed, the assumption of the existence of organs of sense be considered,—as in philosophic truth it unquestionably is,—only another form of the assumption of the existence of external things; since, in relation to the sentient mind, the organs thus supposed to exist, are, in strictness of language, external, as much as the objects supposed to act upon them. All of which we are truly conscious, in sensation, is the mental affection, the last link of the series, in the supposed process; what we term our perceptions of organs of sense, or of other external things that act upon these—our ideas, for example, of a

brain or an eye, a house or a mountain, being as truly states of our own percipient mind, and nothing but states of our own mind, as our feelings of joy or sorrow, hope or fear, love or hate,—to which we never think of giving an existence, nor a direct and immediate cause of existence, out of ourselves. By the very constitution of our nature, however, or by the influence of associations as irresistible as intuition itself,—it is impossible for us not to feel this essential reality in the causes of one set of our mental affections, in the same manner as it is impossible for us to ascribe it to another set. The brain, the eye, the house, the mountain, we believe, and cannot but believe, to have external existence, independent of our own; the joy and sorrow, hope and fear, love and hate, we believe, and cannot but believe, to be merely states of our own mind, occasioned by other former states of mind, and dependent, therefore, for their continuance, on our own continued existence only. Even in our wildest dreams,—in which we imagine all things that are possible, and almost all things which are impossible,—we never consider our joy or sorrow as directly indicative of any thing separate from ourselves, and independent of us.

While o'er our limbs sleep's soft dominion spread,
 What tho' our soul fantastic measures trod,
 O'er fairy fields; or mourn'd along the gloom
 Of pathless woods; or, down the craggy steep
 Hurl'd headlong, swam with pain the mantled pool;
 Or scaled the cliff, or danced on hollow winds,
 With antic shapes, wild natives of the brain;¹

it was still only the cliff, the wood, the pool, which we considered as external: the sorrow with which

¹ Young's Night Thoughts, book i. 90-97.

we mourned along our gloomy track, the pain with which we swam the turbid water, the horror which we felt at the antic shapes with which we mingled in the ghostly dance, were felt to be wholly in ourselves, and constituted, while they lasted, the very feeling of our own existence. The belief of an external world is, however, to come afterwards under our full examination. It is sufficient, for the present, to know that, in the period after infancy, to which alone our memory extends, we are led irresistibly to believe in it; and that the belief of it, therefore, in whatever manner it may have originated in the imperfect perceptions of our infancy, is now, when those perceptions are mature, so completely beyond the power of argument to overcome, that it exists as strongly in those who reason against it, as in those who reason for it; that the reference to a direct external cause, however, does not accompany every feeling of our mind, but is confined to a certain number of that long succession of feelings, which forms the varied consciousness of our life,—and that the feelings, with respect to which this reference is made, are the class of sensations which, when combined with this reference, have commonly been distinguished by the name of perceptions. That we have no perfect evidence of the external existence thus ascribed by us, independently of our own irresistible belief of it, may be allowed to the sceptic; and the reasoning of Dr. Reid on the subject, as far as he proceeds beyond the assertion of this irresistible belief, and attempts, what has been commonly regarded as a confutation of the scepticism on this point,—by representing it as proceeding on a mistake, with respect to the nature of our ideas,—is itself, as we shall afterwards find, nugatory and fallacious. But still, notwithstanding the errors of philo-

sophers with respect to it, the belief itself is, in the circumstances in which we now exist, so truly a part of our constitution, that, to contend against it in argument would be to admit its validity, since it would be to suppose the existence of some one whom we are fairly undertaking to instruct or to confute.

In what circumstance the intuitive belief,—if, as I have said, the belief be in any case intuitive,—arises; or rather, in how large a proportion of cases, in which the reference seems primary and immediate, it is, more probably, the effect of secondary associations transferred from sense to sense,—will appear better after the minute analysis, on which we are to enter, of the different tribes of our sensations.

In referring to the particular class of sensations, and, consequently, to an external cause, a certain number only of the affections of our mind, there can be no doubt that we proceed now, in the mature state of our knowledge, with more accuracy than we could have attained in that early period of life when our original feelings were more recent. We have now a clearer and more definite belief of an external world, and of objects of sensation separate from our sensations themselves; without which general belief, previously obtained, we should as little have ascribed to an external organic cause many of our feelings, which we now ascribe to one—our sensations of sound and fragrance, for example,—as we now ascribe, to such an immediate external cause, our emotions of joy or sorrow. A still more important acquisition is our knowledge of our own organic frame, by which we are enabled in a great measure to verify our sensations,—to produce them, as it were at pleasure, when their external objects are before us, and in this way to correct the feelings which have risen spontaneously,

by those which we ourselves produce. Thus, when in reverie, our conceptions become peculiarly vivid, and the objects of our thought seem almost to exist in our presence; if only we stretch out our hand, or fix our eyes on the forms that are permanently before us, the illusion vanishes. Our organ of touch or of sight is not affected in the same manner as if the object that charms us in our musing dream were really present; and we class the feeling, therefore, as a conception, not as a sensation, which, but for the opportunity of this correction, we should unquestionably, in many instances, have done.

But though, in forming the class of our sensations, we derive many advantages from that full knowledge which the experience of many years has given, we purchase these by disadvantages which are perhaps as great, and which are greater, from the very circumstance that it is absolutely out of our power to estimate their amount. What we consider as the immediate sensation, is not the simple mental state, as it originally followed that corporeal change which now precedes it; but, at least in the most striking of all the tribes of our sensations, is a very different one. We have the authority of reason, *a priori*, as showing no peculiar connexion of the points of the retina with one place of bodies more than with another; and we have the authority also of observation, — in the celebrated case of the young man who was couched by Cheselden, and in other cases of the same peculiar species of blindness, in which the eyes, by a surgical operation, have been rendered for the first time capable of distinct vision, that if we had had no organ of sense but that of sight, and no instinctive judgment had been superadded to mere vision, we should not have had the power of distinguishing the

magnitude and distant place of objects; a mere expanse of colour being all which we should have perceived, if even colour itself could, in these circumstances, have been perceived by us as expanded. Yet it is sufficient now, that rays of light, precisely the same in number, and in precisely the same direction as those which, at one period of our life, exhibited to us colour, and colour alone, should fall once more on the same small expanse of nerve, to give us instantly that boundlessness of vision which, almost as if the fetters of our mortal frame were shaken off, lifts us from our dungeon, and makes us truly citizens, not of the earth only, but of the universe. Simple as the principle may now seem, which distinguishes our secondary or acquired perceptions of vision from those which were primary and immediate, it was long before the distinction was made; and till a period which, — if we consider it in relation to those long ages of philosophic inquiry, or rather of most unphilosophic argumentation, which had gone before, — may be considered almost as in our own time, longitudinal distance was conceived to be as completely an original object of sight as the varieties of mere colour and brilliancy. There may, therefore, — though we have not yet been able, and may never be able to discover it, — be a corresponding difference in our other sensations, which now seem to us simple and immediate. In the case of sound, indeed, there is a very evident analogy to these visual acquired perceptions; since a constant reference to place mingles with our sensations of this class, in the same manner, though not so distinctly, as in our perceptions of sight. We perceive the sound, as it were, near or at a distance, in one direction rather than in another; as, in the case of longitudinal distance in vision, we perceive colour at

one distance rather than at another. Yet there is as little reason, from the nature of the organic changes themselves, to suppose that different affections of our auditory nerves should originally give us different notions of distance, as that such notions should originally be produced by different affections of the retina; and, as in sight and hearing, so it is far from improbable that in all our senses there may, by the reciprocal influence of these upon each other, or by the repeated lessons of individual experience in each, be a similar modification of the original simple feelings, which, in that first stage of existence that opened to us the world and its phenomena, each individual organ separately afforded. Our reasoning with respect to them, therefore, as original organs of sense, may perhaps be as false as our chemical reasoning would be were we to attempt to infer the properties of an uncombined acid, or alkali, from our observation of the very different properties of a neutral salt, into the composition of which we know that the acid or the alkali has entered.

If, indeed, it were in our power to be introduced to a society, like that of which Diderot speaks, in his letter on the deaf and dumb, and to hold communication with them, all our doubts on this subject would be removed. "What a strange society," says he, "would five persons make, each of them endowed with only one of our five different senses; and no two of the party with the same sense! There can be no doubt that, differing, as they must differ, in all their views of nature, they would treat each other as madmen, and that each would look upon the others with all due contempt. It is, indeed, only an image of what is happening every moment in the world; we have but one sense, and we judge of every thing."¹ "There is, however," he

¹ Œuvres, tom. ii. p. 12.

justly remarks, "one science, though but one science, in which the whole society of the different senses might agree, — the science which has relation to the properties of number. They might each arrive, by their separate abstractions, at the sublimest speculations of arithmetic and algebra; they might fathom the depths of analysis, and propose and resolve problems of the most complicated equations, as if they were all so many Diophantuses. It is perhaps," he adds, "what the oyster is doing in its shell."²

From such a society, — if, indeed, we could hold any communication with these profound algebraists, except in their common science of numbers — we might undoubtedly learn what are the direct immediate affections of mind to which our senses individually give rise, and consequently how much, while feeling has blended with feeling, they have reciprocally operated on each other. But, in our present circumstances, unaided by intercourse with such living abstractions, it is impossible for us to remove wholly this uncertainty, as to the kind and degree of influence which experience may have had in modifying our primary sensations. We may wish, indeed, to be able to distinguish our present feelings from those which the same objects originally excited; but since no memory can go back to the period at which we did not perceive longitudinal distance, as it were, immediately by the eye, as little, we may suppose, can any memory go back to the period when other sensations, less interesting than those of vision, were first excited. Could we trace the series of feelings, in a single mind, — as variously modified, in the progress from infancy to maturity, — we should know more of the intellectual and moral nature of man than is probably ever to be revealed to his inquiry, — when, in ages as remote

² Œuvres, tom. ii. p. 131.

from that in which we live, and perhaps as much more enlightened, as our own age may be said to be, in relation to the period of original darkness and barbarism, he is still to be searching into his own nature with the same avidity as now. He must, indeed, be a very dull observer, who has not felt, on looking at an infant, some desire to know the little processes of thought that are going on in his curious and active mind; and who, in reflecting on the value, as an attainment in science, which the sagest philosopher would set on the consciousness of those acquisitions which infancy has already made, is not struck with that nearness, in which, in some points, extreme knowledge and extreme ignorance may almost be said to meet. What metaphysician is there, however subtle and profound in his analytical inquiries, and however successful in the analyses which he has made, who would not give all his past discovery, and all his hopes of future discovery, for the certainty of knowing with exactness what every infant feels? The full instruction, which such a view of our progressive feelings, from their very origin, in the first sensations of life, would afford, Nature, in her wisdom, however, has not communicated to us, more than she has communicated to us the nature of that state of being which awaits the soul after it has finished its career of mortality. Our existence seems, in our conception of it, never to have had a beginning. As far back as we can remember any event, there is always a period that appears to us still farther back, the events of which we cannot distinguish; as, when we look toward the distant horizon, we see, less and less distinctly, in the long line which the sunshine of evening still illuminates, plains, and woods, and streams, and hills, more distant, half melting into air, beyond which our eye can find nothing, — though we are still cer-

tain that other woods, and streams, and plains, are there, and that it is only the imperfection of our sight which seems to bound them as in another world. It is to man, when he thinks upon his own beginning as if he felt himself in a world of enchantment, amid the shades and flowers of which he had been wandering, unconscious of the time at which he entered it, or of the objects that are awaiting him, when he shall have arrived at the close of that path whose windings still lead him forward, — and knowing little more than that he is himself happy, and that the unknown Being, who has raised this magnificent scene around him, must be the friend of the mortal whom he has deigned to admit into it.

Well pleased he scans
 The goodly prospect,—and with inward smiles,
 Treads the gay verdure of the painted plain,—
 Beholds the azure canopy of heaven,
 And living lamps, that over-arch his head
 With more than regal splendour,—bends his ear
 To the full choir of water, air, and earth;
 Nor heeds the pleasing error of his thought,
 Nor doubts the painted green or azure arch,
 Nor questions more the music's mingling sounds,
 Than space, or motion, or eternal time;
 So sweet he feels their influence to attract
 His fixed soul, to brighten the dull glooms
 Of care, and make the destined road of life
 Delightful to his feet. So, fables tell,
 The adventurous hero, bound on hard exploit,
 Beholds with glad surprise, by secret spell
 Of some kind sage, the patron of his toils,
 A visionary paradise disclosed,
 Amid the dubious wild;—with streams, and shades,
 And airy songs, the enchanted landscape smiles,
 Cheers his long labours, and renews his frame.¹

¹ Pleasures of Imagination, book iii. 493-514. The Fixed Soul, ver. 505; Exploits, 508; and Spells, 509. *Orig.*

The philosophic use of the term sensation does not necessarily imply, what, in its popular use, is considered almost as involved in it; and perhaps, therefore, it may not be superfluous to warn you, that it is not confined to feelings which are pleasurable or painful, but extends to every mental affection that is the immediate consequence of impression on our organs of sense; of which mental states or affections, many, and, as I am inclined to think, by far the greater number, are of a kind that cannot be termed either agreeable or disagreeable. Of the objects of sight, for example, which are of such very frequent occurrence, how few are there at which we look, either with pleasure or with pain,—if we except that indirect pleasure which, in particular cases, they may afford, as communicating to us information that is valuable in itself, or as gratifying even our idlest curiosity. To take one of the most striking cases of this sort: though we may derive, from the perusal of a work that interests us, the purest delight, it is a delight resulting only from the conceptions which the author, in consequence of the happy contrivance of symbolie characters, has been able to transfuse, as it were, from his own mind into ours; but, during all the time of the perusal, sensations, almost innumerable, have been excited in us by the separate characters with which the pages are covered, that have never mingled even the faintest direct pleasure with the general emotion which they, and they alone, have indirectly produced.

“I apprehend,” says Dr. Reid, “that besides the sensations that are either agreeable or disagreeable, there is still a greater number that are indifferent. To these we give so little attention that they have no name, and are immediately forgot, as if they had never

been; and it requires attention to the operations of our minds to be convinced of their existence. For this end, we may observe that, to a good ear, every human voice is distinguishable from all others. Some voices are pleasant, some disagreeable; but the far greater part can neither be said to be one or the other. The same thing may be said of other sounds, and no less of tastes, smells, and colours; and if we consider that our senses are in continual exercise while we are awake, that some sensation attends every object they present to us, and that familiar objects seldom raise any emotion, pleasant or painful, — we shall see reason, besides the agreeable and disagreeable, to admit a third class of sensations, that may be called indifferent. The sensations that are indifferent are far from being useless. They serve as signs to distinguish things that differ; and the information we have concerning things external comes by their means. Thus, if a man had no ear to receive pleasure from the harmony or melody of sounds, he would still find the sense of hearing of great utility: though sounds gave him neither pleasure nor pain, of themselves, they would give him much useful information; and the like may be said of the sensations we have by all the other senses.”¹

It is as signs, indeed, far more than as mere pleasures in themselves, that our sensations are to us of such inestimable value. Even in the case to which I before alluded, of the symbolic or arbitrary characters of a language, when we consider all the important purposes to which these are subservient, as raising us originally from absolute barbarism, and saving us from relapsing into it, there might be an

¹ On the Intellectual Powers, Essay II. c. 16.

appearance of paradox indeed, but there would be perfect truth in asserting, that the sensations which are themselves indifferent, are more precious, even in relation to happiness itself, than the sensations which are themselves accompanied with lively delight, or rather, of which it is the very essence to be delightful. Happiness, though necessarily involving present pleasure, is the direct or indirect, and often the very distant, result of feelings of every kind, pleasurable, painful, and indifferent. It is like the beautiful profusion of flowers which adorn our summer fields. In our admiration of the foliage, and the blossoms, and the pure airs and sunshine, in which they seem to live, we almost forget the darkness of the soil in which their roots are spread. Yet how much should we err, if we were to consider them as deriving their chief nutriment from the beams that shine around them, in the warmth and light of which we have wandered with joy. That delightful radiance alone would have been of little efficacy without the showers, from which, in those very wanderings, we have often sought shelter at noon; or at least without the dews, which were unheeded by us, as they fell silently and almost insensibly on our evening walk.

With the common division of our sensations into five classes,—those of smell, taste, hearing, sight, touch, we have been familiar, almost from our childhood; and though the classification may be far from perfect, in reference to our sensations themselves, considered simply as affections of the mind, it is sufficiently accurate in reference to the mere organs of sense; for, though our sensations of heat and cold, in one very important respect, which is afterwards to be considered by us, have much less resemblance to the other sensations which we acquire by our

organs of touch, or at least to sensations which we are generally supposed to derive from that organ, than to sensations which we receive by the medium of other organs, our sensations of smell and sound for example—still, as they arise from an affection of the same organ, they may be more conveniently referred to the same than to any other class; since, if we quit that obvious line of distinction which the difference of organs affords, we shall not find it easy to define them by other lines as precise.

But whatever may be the arbitrary division or arrangement which we may form either of our sensations themselves, or of the organs that are previously affected, the susceptibility of the mind, by which it is capable of being affected by the changes of state in our mere bodily organs, must be regarded as, in every sense of the word, of primary value in our mental constitution. To the individual, indeed, it may be said to be in itself all the things which are around him, however near or afar; because it is truly that by which alone all things near or afar become known to him. It constitutes, by this mutual relation which it establishes, a power of more than magic agency, before which the great gulf that appeared to separate for ever the worlds of matter and of spirit, disappears, which thus links together substances, that seemed, in their nature, incapable of any common bond of union, and which, bringing the whole infinity of things within the sphere of our own mind, communicates to it some faint semblance of the omnipresence of its Author. "What is that organ," says an eloquent French writer, speaking of the eye, "what is that astonishing organ, in which all objects acquire, by turns, a successive existence,—where the spaces, the figures, and the motions that surround me are as it were created,—where the stars

that exist at the distance of a hundred millions of leagues, become a part of myself,—and where, in a single half inch of diameter, is contained the universe?" This power of external sense, which first awakes us into life, continues, ever after, to watch as it were round the life which it awoke, lavishing on us perpetual varieties of instruction and delight; and if, from the simple pleasures, and simple elementary knowledge which it immediately affords, we trace its influence, through all the successive feelings to which it indirectly gives rise, it may be said to exist, by a sort of intellectual and moral transmutation, in the most refined and ethereal of all our thoughts and emotions. What Gray says of it,—in the commencement of his beautiful fragment, *De Principiis Cogitandi*, addressed to his friend West, is not too high a panegyric,—that every thing delightful and amiable, friendship, and fancy, and wisdom itself, have their primary source in it.

Non illa *leves* primordia motus,
 Quancquam parva, dabunt. Lætum vel amabile quicquid
 Usquam oritur, trahit hinc ortum; nec surgit ad auras,
 Quin ea conspirent simul, eventusque secudent.
 Hinc variae vitæ artes, ac mollior usus,
 Dulce et amicitiae vinclum: Sapientia dia
 Hinc roseum accendit lumen, vultûque sereno,
 Humanas aperit mentes, nova gaudia monstrans.

Illa etiam, quæ te (mirum) noctesque diesque
 Assiduè fovit inspirans linguamque sequentem
 Temperat in numeros, atque horas mulcet inertes,
 Aurea non alia si jactat origine Musa.¹

So much, indeed, of human knowledge, and of all that is valuable and delightful in human feeling, involves these elementary sensations, as it were, in the very essence of the thoughts and feelings themselves,

¹ Lib. i. 18-25, and 28-31.

that one of the most acute of modern French metaphysicians, and, with scarcely an exception, all the philosophers of the French metaphysical school, who are his followers, have considered the whole variety of human consciousness as mere sensation variously transformed; though, in stating the nature of this transformation, and the difference of the sensations as transformed from the primary forms of mere external feeling, they have not been so explicit as the assertors of a system so paradoxical ought assuredly to have been. On the fallacies of this very prevalent theory of the mind, however, which is afterwards to be examined by us fully, I need not at present make any remarks.

Though this excessive simplification of the phenomena of human thought and feeling is, however, far more than the phenomena truly allow, it is not the less certain that all the varieties of our consciousness, though not mere transformations of external sense, are, when traced to their source, the results of sensation in its various original forms. In inquiring into the phenomena of our senses, then, we begin our inquiry where knowledge itself begins; and though the twilight, which hangs over this first opening of intellectual life, is perhaps only a presage, or a part of that obscurity which is to attend the whole track of human investigation, it still is twilight only, not absolute darkness. We can discover much, though we cannot discover all; and where absolute discovery is not allowed, there is still left to us a probability of conjecture, of which, in such limited circumstances, even philosophy might justly avail herself without departing from her legitimate province.

LECTURE XIX.

Brief Notice of the Corporeal Part of the Process in Sensation.

THE mental phenomena of the class which is at present under our consideration, being those which arise in consequence of certain previous affections of our organs of sense, it is necessary that we should take some notice of the corporeal part of the process; though it must always be remembered, that it is the last part of the process, the mental affection only, which truly belongs to our science,—and that if this, in all its varieties, had been the result of any other species of affections of organs constituted in any other manner,—as long as there was the regular correspondence of certain mental affections with certain organic affections, — the philosophy of mind would have continued precisely the same as now. Our systems of anatomy, and of the physiology of our mere bodily frame, would indeed have been different; but not that more intimate physiology which relates to the functions of the animating spirit, whose presence is life, and without which our bodily frame, in all its beautiful adaptation of parts to parts, is a machine as inert and powerless as the separate atoms that compose it.

The great essential organ of all sensation is the brain, with its appendages, particularly the nerves that issue from it to certain organs which are more strictly termed the organs of sense; as it is there the immediate objects, or external causes of sensation, the particles of light, for example, in vision, or of odour in smell, arrive and come, as it were, into contact with the sensorial substance. Each organ, as you well know, has objects peculiar to itself, which it

would be superfluous to enumerate; and since the blind are still sensible of sound, the deaf of colour, and both of smell, and taste, and touch, there must evidently be some difference, either in the sensorial substance itself, which is diffused over the different organs, or in the mode of its diffusion, and exposure in the different organs, from which this striking diversity of their relative sensibilities proceeds. The nervous matter, however, considered separately from the coats in which it is enveloped, is of the same half fibrous, but soft and pulpy texture, as the substance of the brain itself, and is in perfect continuity with that substance, forming, therefore, with it, what may be considered as one mass, as much as the whole brain itself may be considered as one mass; which has, indeed, for its chief seat the great cavity of the head; the—

*Supernas hominis sedes, arcemque cerebri;
Namque illic posuit solium, et sua templa sacravit,
Mens animi;*¹

but which extends, by innumerable ramifications, over the whole surface, and through the internal parts of the body. The mind, in that central brain in which it is supposed to reside, communicating with all these extreme branches, has been compared, by a very obvious but a very beautiful similitude, to the parent ocean, receiving from innumerable distances the waters of its filial streams:

*Ac uti longinquis descendunt montibus amnes,
Velivolus Tanais, flaventisque Indus arenæ,
Euphratesque, Tagusque, et opimo flumine Ganges,
Undas quisque suas volvens,—cursûque sonoro
In mare prorumpunt; hos magno acclinis in antro
Excipit Oceanus, natorumque ordine longo
Dona recognoscit venientûm, ultròque serenat*

¹ Gray de Princip. Cogit. lib. i. 48-50.

*Cœruleam faciem, et diffuso marmore ridet.
Haud aliter species properant se inferre novellæ
Certatim menti.*¹

In the brain itself, the anatomist is able to show us, with perfect clearness, many complicated parts, which we must believe to be adapted for answering particular purposes in the economy of life; but when we have gazed with admiration on all the wonders which his dissecting hand has revealed to us, and have listened to the names with which he most accurately distinguishes the little cavities or protuberances which his knife has thus laid open to our view, we are still as ignorant as before of the particular purposes to which such varieties of form are subservient; and our only consolation is,—for there is surely some comfort in being only as ignorant as the most learned,—that we know as much of the distinct uses of the parts as the anatomist himself, who exhibits them to us, and teaches us how to name them. A structure in every respect different, though assuredly less fit than the present, which has been chosen by infinite wisdom, might, as far as we know, have answered exactly the same end; which is as much as to say, that our ignorance on the subject is complete. The only physiological facts of importance, in reference to sensation, are, that if the nerves, which terminate in particular organs, be greatly diseased, the sensations which we ascribe to those particular organs cease; and cease, in like manner, if the continuity of the nerves with the brain be destroyed, by cutting them in any part of their course; or if, without loss of absolute continuity, their structure in any part of their course be impaired by pressure, whether from tight ligatures drawn around them for the purpose of experiment, or

¹ Gray de Princip. Cogit. lib. i. 54-63.

from natural morbid causes. In short, if the brain and nerves be in a sound state, and certain substances be applied to certain parts of the nervous system,—as, for instance, sapid bodies to the extremities of the nerves of taste, or light to that expansion of the optic nerve, which forms what is termed the retina,—there is then instant sensation; and when the brain itself is not in a sound state to a certain extent, or when the nerve which is diffused on a particular organ is, either at this extremity of it, or in any part of its course, to a certain degree impaired, then there is no sensation, though the same external causes be applied. This very slight general knowledge of the circumstances in which sensation takes place, and of the circumstances in which it does not take place, is all the knowledge which physiology affords us of the corporeal part of the process; and it is likely to continue so for ever,—at least in all the more important respects of our ignorance,—since any changes which occur in the corpuscular motion, and consequent new arrangement of the particles of the substance of the brain and nerves, corresponding with the diversities of feeling during those particular states,—if such corpuscular motions or changes do really take place,—are probably far too minute to be observable by our organs; even though we could lay open all the internal parts of the brain to complete observation, without destroying, or at all affecting, the usual phenomena of life :—

In following life through creatures we dissect,
We lose it, in the moment we detect.¹

Indeed, we are not able to do even so much as this; for life has already vanished, long before we have come

¹ Pope's *Essay on Man*, Ep. ii. 174-177.

upon the verge of its secret precincts. It is like a magician, that operates at a distance on every side, but still keeps himself apart, within a narrow circle. If we remain without the circle, we may gaze with never-ceasing admiration on the wonders that play in rapid succession before our eyes. But if we rush within, to force an avowal of the secret energy that produces them, the enchanter and the enchantments alike are fled.

The brain, then, and the various nerves of sense in continuity with it, may, when taken together, be considered as forming one great organ, which I would term briefly the sensorial organ, essential to life, and to the immediate production of those mental phenomena which constitute our sensations, and, perhaps, too, modifying in some measure, directly or indirectly, all the other phenomena of the mind.

*"Dum mens alma caput cerebrique palatia celsa
Occupat, et famulos sublimis dirigit artus,
Et facili imperio nervorum flectit habenas,
Illius ad nutum sensus extranea rerum
Explorant signa, et studio exemplaria fido
Ad dominam adducunt: vel qui statione locantur
Vicinâ, capitisque tuentur limina, ocelli,
Naresque, auriculæque, et vis arguta palati;
Vel qui per totam currit sparso agmine molem
Tactus, ad extremas speculator corporis oras.*

*His sensim auxiliis instructa fidelibus, olim,
Mens humilis nulloque jacens ingloria culta
Carceris in tenebris, mox sese attollit in auras
Dives opum variarum, et sidera scandit Olympi."*

Of the nature of the connexion of this great sensorial organ with the sentient mind, we never shall be able to understand more than is involved in the simple fact, that a certain affection of the nervous system precedes immediately a certain affection of

the mind. But, though we are accustomed to regard this species of mutual succession of bodily and mental changes, as peculiarly inexplicable, from the very different nature of the substances which are reciprocally affected, it is truly not more so than any other case of succession of events, where the phenomena occur in substances that are not different in their properties, but analogous, or even absolutely similar; since, in no one instance of this kind, can we perceive more than the uniform order of the succession itself; and of changes, the successions of which are all absolutely inexplicable, or, in other words, absolutely simple, and unsusceptible, therefore, of further analysis, none can be justly said to be more or less so than another. That a peculiar state of the mere particles of the brain, should be followed by a change of state of the sentient mind, is truly wonderful; but if we consider it strictly, we shall find it to be by no means more wonderful than that the arrival of the moon, at a certain point of the heavens, should render the state of a body on the surface of our earth different from what it otherwise would naturally be; or that the state of every particle of our globe, in its relative tendencies of gravitation, should be instantly changed, as it unquestionably would be, by the destruction of the most distant satellite of the most distant planet of our system, or probably, too, by the destruction even of one of those remotest of stars, which are perhaps illuminating their own system of planets, so far in the depth of infinity, that their light,—to borrow a well-known illustration of sidereal distance,—may never yet have reached our earth since the moment at which they darted forth their first beams on the creation of the universe. We believe, indeed, with as much confidence, that one event will uniformly have for its

consequent another event, which we have observed to follow it, as we believe the simple fact that it has preceded it in the particular case observed. But the knowledge of the present sequence, as a mere fact to be remembered, and the expectation of future similar sequences, as the result of an original law of our belief, are precisely of the same kind, whether the sequence of changes be in mind or in matter, singly or reciprocally in both.

What the nature of the change is, that is produced at the extremity of the nerve, it is beyond our power to state, or even to guess; and we are equally ignorant of the manner in which this affection of the nerve is communicated, or is supposed to be communicated, to the brain. But that some affection is gradually propagated, from the one to the other, so as to render the change in the state of the brain subsequent, by a certain interval, to the change in the state of the nerve, is universally believed. In applying to this change the term *impression*, a term indeed which had been in common use before, Dr. Reid is careful to point out the reason for which this term appears to him preferable to others; and though I confess that the word seems to me to convey too much the notion of a peculiar well-known species of action, —that which consists in producing a certain configuration of the object impressed, corresponding with the figure of the impressing object, the very notion that has had so pernicious an effect in the theory of perception; and though I conceive the simple term *change* or *affection* to be all which is safely admissible, as long as the nature of the particular change is absolutely unknown; still it must be confessed, that *impression* is a term a little more general than the other names of action to which Dr. Reid

alludes, and therefore preferable to them, in the present case.

"There is sufficient reason," he says, "to conclude, that, in perception, the object produces some change in the organ; that the organ produces some change upon the nerve; and that the nerve produces some change in the brain. And we give the name of an impression to those changes, because we have not a name more proper to express, in a general manner, any change produced in a body by an external cause, without specifying the nature of that change. Whether it be pressure, or attraction, or repulsion, or vibration, or something unknown, for which we have no name, still it may be called an impression. But, with regard to the particular kind of this change or impression, philosophers have never been able to discover any thing at all."¹

That the word *impression* is not so free, as Dr. Reid supposes, from that hypothetical meaning which he wished to avoid, I have already remarked. But the reason assigned by him for his preference of it, is unquestionably a just one; since a phrase which expresses the least possible knowledge, must be allowed to be the best suited to human ignorance,—that ignorance which, not in the philosophy of intellect only, but in whatever track of science we may proceed, and whatever truths we may proudly discover in our way, still meets us at the end of every path, as if to mock at once our weakness and our pride,—and which seems to us to be every where, because it is wherever we are ourselves. The splendour of nature, as it exists in itself, is, if I may speak figuratively, like sunshine on a boundless plain, on the flowers and herbage of which, though there be

¹ On the Intellectual Powers, Essay II. chap. ii.

innumerable varieties of colour, there is brilliancy in all. But the misfortune is, that, as soon as we have approached near enough to distinguish the diversity of tints, their brilliancy is so obscured by our very approach to them, that their nice diversities are no longer distinguishable; as if man could not move along without throwing his own shadow on every thing before him.

When I say, that we are ignorant of the nature of that change, which is propagated along the nerve to the brain, I speak in reference to an opinion that is universal. But though it may be improbable, it is certainly far from impossible, that there is really no such progressive communication as this which is supposed. The brain and nerves, though, from the difference of names, you might be led, perhaps, to consider them as distinct, I have already said, are not separate organs, but are in continuity with each other, at least as much as various parts of the brain itself, which are comprehended under that single term, can be said to be continuous. When taken together, they form what is truly one complicated sensorial organ,—the organ of all our sensations, according to the different states in which the organ exists, or the different parts of it which are chiefly affected. In hearing, for example, a certain state of that part of the sensorial organ which constitutes the auditory nerves,—in vision, a certain state of that part of it, which constitutes the optic nerves,—is necessary to sensation; and, in both cases, according to the universal supposition on the subject, all or part of the brain likewise must exist in a certain state, of which we know nothing more, than that it is followed, in the one case, by the sensation of sound, in the other case by that of sight. The connexion of the mind with the bodily

frame,—which must be equally inexplicable on every supposition that can be formed,—is not supposed, by any philosopher, to depend on the state of a single physical point of the brain alone; and, if it extend to more than one such point, there is nothing, in the nature of the connexion itself, independently of experience, which necessarily limits it to one portion of the complex sensorial organ more than to another,—to the particles of the central mass of the brain, for example, more than to those of the nerve itself. It is experience, then, to which we are referred; and experience, though it shows that certain nerves are not essential to life, since life continues equally after they may have been impaired, or even destroyed, is far from showing that an affection of them is not essential to sensation, at the very moment of the particular sensation; nor does it afford even the slightest evidence to justify the belief that the only use of the nerve is to communicate a certain affection to the brain, which affection of the mere central part of the sensorial organ would, of itself, immediately induce sensation, though the nerve were annihilated in the preceding instant. The sensation may be the immediate effect, not of the state of the brain only, but of the state of the brain and of any particular nerve considered as existing together at the moment; in the same manner, as, by those who ascribe the immediate origin of sensation to the mere brain, exclusive of its nervous appendages, it is supposed to depend on the state, not of one physical point of the central brain, but on the state of many such coexisting points. We know not to what extent, in the great sensorial organ, this change is necessary; but we believe, that, to some extent, it is necessary; and the question is, whether, in the whole portion so affected,

the affection be produced by a succession of changes, propagated from part to part? This may, perhaps, be the more probable supposition ; but whatever may be the comparative probability or improbability, it certainly has not been demonstrated by observation or experiment ; nor can there be said to be, *a priori*, any absurdity in the opposite supposition, that the sensorial affection, to whatever extent it may be necessary, is not progressive, but immediate,—that, as long as the sensorial organ (under which term I comprehend, as I have already frequently repeated, not the brain merely, but also its nervous appendages, that exist in apparent continuity with the brain,) is unimpaired by accident or disease, the presence of the immediate object of sense, at the external organ, which, on every supposition, must be followed by some sensorial change of state, is instantly followed by that general change of state of the internal organ, whatever it may be, which is necessary to sensation, in the particular case ; in the same manner as the presence of a celestial body, at a certain point in the heavens, is immediately followed by a change of state in the whole gravitating particles of our globe ; the change in any long line of these gravitating particles being not communicated from each to each, but depending only on the presence of the distant sun or planet ; and beginning in the most remote particle of the line, at the very same instant, as in that which is nearest, on the surface of the earth. An instant change, in the long line of sensorial particles,—if the affection of a long line of these particles be necessary, —on the presence of a particular object, is not more improbable in itself, than this instant and universal influence of gravitation, that varies with all the varying positions of a distant object.

But is it, indeed, certain, that, in sensation, there is an affection of the central brain, whether immediate or progressive? Is it not possible, at least, or more than possible, that the state of the mind, when we perceive colours and sounds, may be the immediate consequent of the altered state of that part of the sensorial organ which forms the expansion of the nerve in the eye or ear? The sensations must be supposed, in every theory, to be the consequents of states induced in some sensorial particles; and there is nothing but the mere names of brain and nerve, invented by ourselves, and the notions which we have chosen, without evidence, to attach to these mere names, which would mark the sensorial particles in the nervous expanse itself, as less fitted to be the immediate antecedents of sight and hearing, than the similar sensorial particles in any portion of the central mass of the brain. There is no reason, in short, *a priori*, for supposing that a state of the sensorial particles of the nerves cannot be the cause of sensation, and that the sensation must be the effect of a state equally unknown, of apparently similar particles, in that other part of the general sensorial organ, which we have denominated the brain. Sensation, indeed, is prevented by decay, or general disease of the brain, or by separation of the nerve, or pressure on it, in any part of its course. But it is far from improbable, that these causes, which must evidently be injurious to the organ, may act, merely by preventing that sound state of the nerve which is necessary for sensation, and which, in an organ so very delicate, may be affected by the slightest influences,—by influences far slighter than may naturally be expected to result from such an injury of such a part. The nerves and brain together form one great organ; and a sound

state of the whole organ, even from the analogy of other grosser organs, may well be supposed to be necessary for the healthy state and perfect function of each separate part.

If, indeed, the appearance of the brain and nerves were such as marked them to be peculiarly fitted for the communication of motion of any sort, there might be some presumption, from this very circumstance, in favour of the opinion that sensation takes place only after a progressive series of affections of some sort, propagated along the nerve to the interior brain. But it must be remembered, that the nature, both of the substance of the nerves themselves, and of the soft and lax substance in which they are loosely embedded, renders them very ill adapted for the communication of nice varieties of motion, and gives some additional likelihood, therefore, to the supposition that affections of the sensorial organ, so distinct as our sensations are from each other, and so exactly corresponding with the slightest changes of external objects, do not depend on the progressive communication of faint and imperceptible motion, in circumstances so unfavourable to the uninterrupted progress even of that more powerful motion which can be measured by the eye. In a case so doubtful as this, however, in which the intervening changes supposed by philosophers,—if such a progressive series of motions do really take place,—are confessed to be beyond our observation, it is impossible for any one, who has a just sense of the limits which nature has opposed to our search, to pronounce with certainty, or even perhaps with that faint species of belief which we give to mere probability. My conjectures on the subject, therefore, I state simply as conjectures, and nothing more.

If, indeed, what is but a mere conjecture could be

shown to be well founded, it would add another case to the innumerable instances, in which philosophers have laboured, for ages, to explain what did not exist—contenting themselves, after their long toil, with the skill and industry which they have exhibited, in removing difficulties, which they had before, with great skill and industry, placed in their own way. “I am not so much convinced of our radical ignorance,” says an ingenious writer, “by the things that are, of which the nature is hid from us, as by the things that are not, of which, notwithstanding, we contrive to give a very tolerable account; for this shows that we are not merely without the principles which lead to truth, but that there are other principles in our nature, which can accommodate themselves very well, and form a close connexion with what is positively false.”

But whatever reason there may be for removing this supposed link of the corporeal part of the process of sensation, there is another prior link, which it appears to me of great importance to separate from the chain. I allude to the distinction which is commonly made of the objects of sense, as acting themselves on our organs, or as acting through what is termed a medium.

“A second law of our nature,” says Dr. Reid, “regarding perception, is, that we perceive no object, unless some impression is made upon the organ of sense, either by the immediate application of the object, or by some medium which passes between the object and the organ. In two of our senses, viz. touch and taste, there must be an immediate application of the object to the organ. In the other three, the object is perceived at a distance, but still by means of a medium, by which some impression is made upon the organ. The effluvia of bodies drawn

into the nostrils with the breath, are the medium of smell; the undulations of the air, are the medium of hearing; and the rays of light, passing from visible objects to the eye, are the medium of sight. We see no object, unless rays of light come from it to the eye. We hear not the sound of any body, unless the vibrations of some elastic medium, occasioned by the tremulous motion of the sounding body, reach our ear. We perceive no smell, unless the effluvia of the smelling body enter into the nostrils. We perceive no taste, unless the sapid body be applied to the tongue, or some part of the organ of taste. Nor do we perceive any tangible quality of a body, unless it touch the hands, or some part of our body.”¹

It is evident that, in these cases of a supposed medium, which Dr. Reid considers as forming so important a distinction of our sensations, the real object of sense is not the distant object, but that which acts immediately upon the organs, — the light itself, not the sun which beams it on us, — the odorous particles which the wind has wafted to us from the rose, not the rose itself upon its stem, — the vibrations of the air within our ear, not the cannon that is fired at the distance of miles. The light, the odour, the vibrating air, by which alone our senses are affected, act on our nerves of sight, of smell, and hearing, with an influence as direct, and as little limited in the kind of action, as that with which the fruit, which we eat or handle, acts on our nerves of taste or touch. This influence of the objects immediately external, is all in which our organs of sense, and consequently the mind as the principle of mere sensation, is concerned. The reference to the distant sun, or rose, or cannon,

¹ On the Intellectual Powers, Essay II. chap. ii.

which alone leads us to speak of a medium in any of these cases, is the effect of another principle of our intellectual nature, — the principle of association, or suggestion, — that is afterwards to be considered by us, without which, indeed, our mere transient sensations would be comparatively of little value; but which, as a quality or susceptibility of the mind, is not to be confounded with that by which the mind becomes instantly sentient, in consequence of a certain change produced in the state of its sensorial organ.

Since, however, precisely the same series of changes must take place in nature, whether we class the sun, the flower, the cannon, as the objects of sense, or merely the light, the odorous particles, and the vibrating air, it may perhaps be thought, that the distinction now made is only a verbal one, of no real importance. But it will not appear such to those who are conversant with the different theories of perception which we are afterwards to review; many of which that have had the greatest sway, and a sway the most fatal to the progress of intellectual philosophy, appear to me to have arisen entirely, or at least chiefly, from this very misconception as to the real external object of sense. It is sufficient at present to allude to the effect which the mere distance of the supposed object must have had, in giving room to all the follies of imagination to fill up the interval.

It may be necessary, however, to remark by the way, that though I do not conceive the bodies which act through a medium, as it is said, to be the real objects of the particular sense; the immense orb of the sun, for example, in all its magnitude, to be the object of that small organ by which we are sensible of light; or the cannon, which exists we know not

where, to be the object of that organ by which we are sensible of sound ; I am still far from objecting to the popular and very convenient phraseology, by which we speak of seeing the sun, and hearing the cannon — a phraseology that expresses briefly a reference which could not otherwise be expressed but by a very awkward circumlocution, and to make any innovation in which would be as absurd as to reject the popular phrases of the sun's rising and setting, merely because they are inconsistent with our astronomical belief. The most rigid philosophy can require no more, than that, when we talk of the sun's actual setting, we should mean, by it, only a certain position relative to that great luminary at which the earth arrives in its diurnal revolution, and that, when we talk of seeing it descend, we should mean nothing more than that we see light of a certain brilliancy, from which we infer the existence and relative position of the orb that has projected it.

I have been led into these observations, on the various parts of the corporeal process which precedes sensation, by the desire of removing, as much as possible, any obscurity in which your notions on the subject might be involved, — as I know well the influence which even a slight confusion in our notion of any part of a complicated process has in spreading, as it were, its own darkness and perplexity over parts of the process which otherwise we should have found no difficulty in comprehending. You might think, that you knew less distinctly the mental sensation itself, because you knew only obscurely the series of bodily changes that precede sensation ; but still it must be remembered, that it is only the last link of the corporeal chain, — the ultimate affection of the sensorial organ, in whatever manner and to whatever

extent it may be affected, — immediately antecedent to the affection of the mind, which is to be considered as that with which nature has united the corresponding change in our mental frame. This mysterious influence of our bodily on our mental part, has been poetically compared to that which the sun was supposed to exercise on a lyre, that formed part of a celebrated Egyptian statue of Memnon, which was said to become musical when struck with its beams; and though the poet has extended the similitude, beyond our mere elementary sensations, to the complex perception of beauty, it is still a very happy illustration—as far as a mere poetic image can be an illustration — of the power which matter exercises over the harmonies of mind :—

For, as old Memnon's image, long renown'd
By fabling Nilus, to the quivering touch
Of Titan's ray, with each repulsive string
Consenting, sounded through the warbling air
Unbidden strains,—even so did Nature's hand,
To certain species of external things
Attune the finer organs of the mind.
So the glad impulse of congenial powers,
Or of sweet sound, or fair proportion'd form,
The grace of motion, or the bloom of light,
Thrills through Imagination's tender frame,
From nerve to nerve. All naked and alive,
They catch the spreading rays; till now the soul
At length discloses every tuneful spring,
To that harmonious movement from without
Responsive. Then the charm, by Fate prepared,
Diffuses its enchantment.¹ Fancy dreams

¹ "Then the charm," &c. to "enchantment," from the second form of the Poem. The corresponding clause in the first form, from which all the rest of the quotation is taken, is this,

Then the inexpressive strain
Diffuses its enchantment.

Of sacred fountains, and Elysian groves,
 And vales of bliss ! the Intellectual Power
 Bends from his awful throne a wondering ear,
 And smiles ; the Passions gently soothed away,
 Sink to divine repose ; and Love and Joy
 Alone are waking.”¹

When we consider the variety of our feelings thus wonderfully produced,—the pleasures, and, still more, the inexhaustible knowledge, which arise, by this mysterious harmony, from the imperceptible affection of a few particles of nervous matter, it is impossible for us not to be impressed with more than admiration of that Power, which even our ignorance, that is scarcely capable of seeing any thing, is yet, by the greatest of all the bounties of Heaven, able to perceive and admire. In the creation of this internal world of thought, the Divine Author of our being has known how to combine infinity itself with that which may almost be considered as the most finite of things ; and has repeated, as it were, in every mind, by the almost creative sensibilities with which he has endowed it, that simple but majestic act of omnipotence, by which, originally, he called from the rude elements of chaos, or rather from nothing, all the splendid glories of the universe.

¹ Pleasures of Imagination, book i. 109–131.

LECTURE XX.

Particular Consideration of our Sensations.—Nameless Tribes of Sensations.—Sensations of Smell—of Taste—of Hearing.

A CONSIDERABLE portion of my last Lecture, Gentlemen, was employed in illustrating the corporeal part of the process of perception, which, though less immediately connected with our science than the mental part of the process, is still, from its intimate connexion with this mental part, not to be altogether neglected by the intellectual inquirer. The importance of clear notions of the mere organic changes is, indeed, most strikingly exemplified in the very false theories of perception which have prevailed, and in some measure still prevail; and which evidently, in part at least, owe their origin to those confused notions, to which I alluded in my last lecture, of the objects of perception, as supposed to operate at a distance through a medium, and of complicated series of changes supposed to take place in the nerves and brain.

In considering the phenomena of our mind, as they exist when we are capable of making them subjects of reflection, I mentioned to you, in a former lecture, that although we have to encounter many additional difficulties, in consequence of early associations, that modify for ever after our original elementary feelings, with an influence that is inappreciable by us, because it is truly unperceived, there are yet some advantages, which, though they do not fully compensate this evil, at least enable us to make some deduction from its amount. The benefit to which I allude, is

found chiefly in the class of phenomena which we are now considering,—a class, indeed, which otherwise we should not have regarded as half so comprehensive as it truly is, since, but for our previous belief of the existence of a permanent and independent system of external things acquired from other sources, we should have classed by far the greater number of the feelings, which we now refer to sense, among those which arise spontaneously in the mind, without any cause external to the mind itself.

Though the sensations, which arise from affections of the same organ, — as those of warmth and extension, for example, or at least the feeling of warmth and a tactual feeling, that is commonly supposed to involve extension, from affections of the same nerves of touch, — are not, in every case, more analogous to each other than the sensations which arise from affections of different organs, — and though, if we were to consider the sensations alone, therefore, without reference to their organs, we might not form precisely the same classification as at present; the division, according to the organs affected, in most cases corresponds so exactly with that which we should make in considering the mere sensations as affections of the mind, and affords in itself a principle of classification, so obvious and definite, that we cannot hesitate in preferring it to any other which we might attempt to form. In the arrangements of every science, it is of essential consequence that the lines of difference, which distinguish one class from another, should be well marked; and this advantage is peculiarly important in the science of mind, the objects of which do not, as in the other great department of nature, outlast inquiry, but are, in every case, so very shadowy and fugitive, as to flit from us in the very glance that

endeavours to catch their almost imperceptible outline.

In examining, then, according to their organs, our classes of sensations, — and considering what feelings the organic affections excite at present, and what we may suppose them to have excited originally, — I shall begin with those which are most simple, taking them in the order of smell, taste, hearing; not so much from any hope that the information which these afford will throw any great light on the more complex phenomena of sight and touch, as because the consideration of them is easier, and may prepare you gradually for the difficult analysis which awaits us afterwards in the examination of those more perplexing phenomena.

I begin, then, with the consideration of that very simple order of our sensations which we ascribe to our organ of

SMELL.

The organ of smell, as you well know, is principally in the nostrils, and partly also in some continuous cavities on which a portion of the olfactory nerves is diffused.

*Naribus interea consedit odora hominum vis
Docta leves captare auras, Panchaia quales
Vere novo exhalat, Floræve quod oscula fragrant
Roscida, cum Zephyri furtim sub vesperis horâ
Respondet votis, mollemque aspirat amorem.¹*

When the particles of odour affect our nerves of smell, a certain state of mind is produced, varying with the nature of the odoriferous body. The mere existence of this state is all the information which we could originally have received from it, if it had been excited previously to our sensations of a different class. Br

¹ Gray de Principiis Cogitandi, lib. i. 130-134.

with our present knowledge, it seems immediately to communicate to us much more important information. We are not merely sensible of the particular feeling, but we refer it, in the instant, — almost in the same manner as if the reference itself were involved in the sensation, — to a rose, hemlock, honeysuckle, or any other substance, agreeable or disagreeable ; the immediate presence or vicinity of which we have formerly found to be attended with this particular sensation. The power of making the reference, however, is unquestionably derived from a source different from that from which the mere sensation is immediately derived. We must previously have seen, or handled, the rose, the hemlock, the honeysuckle ; or if, without making this particular reference, we merely consider our sensation of smell as caused by some unknown object external to our mind, we must at least have previously seen or handled some other bodies, which excited, at the same time, sensations analogous to the present. If we had been endowed with the sense of smell, and with no other sense whatever, the sensations of this class would have been simple feelings of pleasure or pain, which we should as little have ascribed to an external cause, as any of our spontaneous feelings of joy or sorrow, that are equally lasting or equally transient. Even at present, after the connexion of our sensations of fragrance with the bodies which we term fragrant, has been, in a great measure, fixed in our mind by innumerable repetitions, we still, if we attend to the process of the reference itself, are conscious of a suggestion of remembrance, and can separate the sensation, as a mere feeling of the mind, from the knowledge of the object or external cause of the sensation, which seems to us a subsequent state of the mind, however close the succession may be.

Indeed, what is there which we can discover in the mere sensation of fragrance, that is itself significant of solidity, extension, or whatever we may regard as essential to the existence of things without? As a mere change in the form of our being, it may suggest to us the necessity of some cause or antecedent of the change. But it is far from implying the necessity of a corporeal cause; any more than such a direct corporeal cause is implied in any other modification of our being, intellectual or moral,—in our belief, for example, of the most abstract truth, at which we may have arrived by a slow development of proposition after proposition, in a process of internal reflective analysis,—or in the most refined and sublime of our emotions, when, without thinking of any one of the objects around, we have been meditating on the Divinity who formed them, himself the purest of spiritual existences. Our belief of a system of external things, then, does not, as far as we can judge from the nature of the feelings, arise from our sensations of smell, more than from any of our internal pleasures or pains; but we class our sensations of smell as sensations, because we have previously believed in a system of external things, and have found, by uniform experience, that the introduction of some new external body, either felt or seen by us, was the antecedent of those states of mind which we denominate sensations of smell, and not of those internal pains or pleasures, which we therefore distinguish from them, as the spontaneous affections of our own independent mind.

TASTE.

With the organ of taste you are all sufficiently acquainted. In considering the phenomena which it

presents, in the peculiar sensations that directly flow from it, it is necessary to make some little abstraction from the sensation of touch, which accompanies them in consequence of the immediate application of the tangible sapid body to the organ; but the sensations, thus coexisting, are so very different in themselves, as to be easily distinguishable. When the organ of taste is in a sound state, the application of certain substances produces, immediately, that change or affection of the sensorial organ which is attended with a corresponding change or affection of the sentient mind. In our present state of knowledge, we immediately refer this simple sensation to something which is bitter, or sweet, or acrid, or of some other denomination of sapid quality; and we have no hesitation in classing the sensations as sensations, — effects of laws of action that belong jointly to matter and mind, — not as feelings that arise in the mind, from its own independent constitution. But, if we attend sufficiently to the feeling that arises in the case of taste, we shall find, however immediate the reference to a sapid body may seem to be, that it is truly successive to the simple sensation, and is the mere suggestion of former experience, when a body previously recognised by us as an external substance, was applied to our organ of taste;—in the same manner, as, when we see ashes and dying embers, we immediately infer some previous combustion, which we could not have inferred, if combustion itself had been a phenomenon altogether unknown to us. In the simple sensation which precedes the reference, — the mere pleasure of sweetness or the mere pain of bitterness — there is nothing which seems to mark more distinctly the presence of honey or wormwood, or any similar external substance, than in any of our joys or sorrows to which

we have not given a name; and there can be no doubt, that, if the particular feeling which we now term joy, and the particular feeling which we now term sorrow, had been excited, whenever we knew, from other sources, that certain bodies were applied to the tongue, we should have considered these internal feelings as sensations, in the strict sense of the word, precisely in the same manner as we now regard, as sensations, the feeling which we term sweetness, and the feeling which we term bitterness; because, like these sensations, they could not have failed to suggest to us, by the common influence of association, the presence and direct antecedence of the object without. In the case of taste, therefore, as in the case of smell, we could not, from the simple sensations, — if these alone had been given to us, — have derived any knowledge of an external world of substances extended and resisting; but we consider them as sensations, in the strict philosophic meaning of the term, because we have previously acquired our belief of an external world.

It may be remarked, of these two classes of sensations, now considered, that they have a greater mutual resemblance than our sensations of any other kind. It is only a blind man who thinks that what is called scarlet is like the sound of a trumpet; but there are tastes which we consider as like smells, in the same manner as we consider them to be like other tastes; and if we had not acquired a distinct knowledge of the seats of our different organs, and had yet known that smells and tastes arose from external causes acting upon some one or other of these, we should probably have been greatly puzzled, in many cases, in our attempt to refer the particular sensation to its particular organ.

In considering the advantages which we derive

from our organs of smell and taste, the mere pleasures which they directly afford, as a part of the general happiness of life, are to be regarded, from their frequent occurrence, as of no inconsiderable amount. The fragrance of the fields enters largely into that obscure but delightful group of images, which rise in our minds on the mere names of spring, summer, the country, and seems to represent the very form of ethereal purity, as if it were the breath of heaven itself.

If we imagine all the innumerable flowers which nature pours out, like a tribute of incense to the God who is adorning her, again to be stripped, in a single moment, of their odour, though they were to retain all their bright diversities of colouring, it would seem as if they were deprived of a spirit which animates them, — how cold and dead would they instantly become, — and how much should we lose of that vernal joy, which renders the season of blossoms almost a new life to ourselves.

In vain the golden Morn aloft
Waves her dew-bespangled wing;
With vermeil cheek and whisper soft
She woos the tardy Spring;
Till April starts and calls around
The sleeping fragrance from the ground.¹

It is by this delightful quality that the tribes of vegetable life seem to hold a sort of social and spiritual communion with us. It is, as it were, the voice with which they address us, and a voice which speaks only of happiness. To him who walks among the flowers which he has tended,

“Each odoriferous leaf,
Each opening blossom, freely breathes abroad
Its gratitude, and thanks him with its sweets.”

¹ Gray on the Pleasure arising from Vicissitude, stanza i. — In ver. i. the original has, instead of “in vain,” “now.”

The pleasures of the sense of taste, in the moderate enjoyment of which there is nothing reprehensible, are, in a peculiar manner, associated with family happiness. To have met frequently at the same board, is no small part of many of the delightful remembrances of friendship; and to meet again at the same board, after years of absence, is a pleasure that almost makes atonement for the long and dreary interval between. In some half-civilized countries, in which the influence of simple feelings of this kind is at once more forcible itself, and less obscured in the confusion of ever-varying frivolities and passions, this hospitable bond forms, as you well know, one of the strongest ties of mutual obligation, sufficient often to check the impetuosity of vindictive passions, which no other remembrance could, in the moment of fury, restrain. Had there been no pleasure attached to a repast, independent of the mere relief from the pain of hunger, the coarse and equal food would probably have been taken by each individual apart, and might even, like our other animal necessities, have been associated with feelings which would have rendered solitude a duty of external decorum. It would not be easy, even for those who have been accustomed to trace a simple cause through all its remotest operations, to say, how much of happiness, and how much even of the warm tenderness of virtue, would be destroyed by the change of manners, which should simply put an end to the social meal; that meal which now calls all the members of a family to suspend their cares for a while, and to enjoy that cheerfulness which is best reflected from others, and which can be permanent only when it is so reflected, from soul to soul, and from eye to eye.

One very important advantage, more directly obvious

than this, and of a kind which every one may be disposed more readily to admit, is afforded by our senses of smell and taste, in guiding our selection of the substances which we take as alimentary. To the other animals, whose senses of this order are so much quicker, and whose instincts, in accommodation to their want of general language, and consequent difficulty of acquiring knowledge by mutual communication, are providentially allotted to them in a degree, and of a kind far surpassing the instincts of the slow, but noble reflector, man, these senses seem to furnish immediate instruction as to the substances proper for nourishment, to the exclusion of those which would be noxious. To man, however, who is under the guardianship of affections, more beneficial to him than any instincts of his own could be, there is no reason to believe that they do this primarily, and of themselves, though in the state in which he is brought up, instructed with respect to every thing noxious or salutary, by those who watch constantly over him in the early period of his life, and having, therefore, no necessity to appeal to the mere discrimination of his own independent organs, and, still more, as, in the artificial state of things in which he lives, his senses are at once perplexed and palled, by the variety and confusion of luxurious preparation, it is not easy to say how far his primary instincts,—if it had not been the high and inevitable dignity of his nature to rise above these,—might, of themselves, have operated as directors. But, whatever their primary influence may be, the secondary influence of his organs of taste and smell is not the less important. When we have once completely learned what substances are noxious, and what are salutary, we then, however similar they may be in their other sensible qualities, discriminate these

as often as they are again presented to us, by that taste or smell, which they affect with different sensations; and our acquired knowledge has thus ultimately, in guiding our choice, the force and the vivacity of an original instinct.

HEARING.

In considering the phenomena of the sense of hearing, to which I now proceed, I may apply to them the same remark which has been already applied to the phenomena of the senses before considered. They are classed by us as sensations, merely in consequence of our previous belief in the existence of those external bodies, the motion of which we have known to be followed by similar feelings. Our mind begins suddenly to exist in a certain state; and we call this state joy or sorrow, without supposing that it depends on the immediate presence of any external object. It begins again to exist in a different state, and we say that we hear a flute, referring the feeling immediately to an external cause. But there can be no doubt that, in making this reference in the one case and not in the other, we are influenced by experience, and by experience alone. If we suppose ourselves endowed with the single sense of hearing, and incapable, therefore, of having previously seen or felt the flute which is breathed before us, or any other extended and resisting object whatever, we may imagine the mere sound to recur, innumerable times, without discovering any mode by which it can give us more knowledge than we should receive from a similar recurrence of any internal joy or sorrow. That we should be able to refer it to a body such as we now mean, when we speak of a flute, is manifestly impossible; since this

implies knowledge of solidity, and form, and colour, which could not be acquired without touch and sight. But there seems even no reason to think that we should refer it to any external cause whatever, unless, indeed, such a reference necessarily accompanied every feeling, which we know is far from being the case, since we have many internal pleasures, not more like to each other than they are to the sound of a flute, which we do not refer to any thing, separate or separable, from the constitution of our own mind. In hearing, therefore, as in taste and smell, we do not derive from its sensations our knowledge of things external, but, in consequence of our knowledge of things external, we regard these feelings as sensations, in the common philosophic meaning of that term.

Simple as our sense of hearing may seem, it affords a striking specimen of that almost infinite variety, which is not inconsistent with the closest resemblance; and the notion which we may form of the innumerable varieties of sound, is perhaps not more vast, when we attempt to wander over its boundless discrepancies, than when we limit ourselves to its greatest similarities in a single word of a language, or in that which we might be inclined at first to regard as simplicity itself, a single musical tone.

"A flute, a violin, a hautboy, and a French horn," it has been truly remarked, "may all sound the same tone, and be easily distinguishable. Nay, if twenty human voices sound the same note, and with equal strength, there will still be some difference. The same voice, while it retains its proper distinctions, may be varied many ways, by sickness or health, youth or age, leanness or fatness, good or bad humour. The same words, spoken by foreigners and natives,

may, by different provinces of the same nation, may be very easily distinguished." ¹

When we speak of the value of this sense, as a part of our mental constitution, it is enough to say, that it is to it we are indirectly indebted for the use of verbal language,—that power so peculiarly distinctive of man, that, in the poetical phraseology of one celebrated country, it gave him his name as a *divider of the voice*, or, in other words, an utterer of articulate sounds. If we consider speech simply as a medium of the reciprocal expression of present feelings to the little society of citizens and friends of which we are a part, even in this limited view, of what inestimable value does it appear! To communicate to every one around us, in a single moment, the happiness which we feel ourselves,—to express the want which, we have full confidence, will be relieved as soon as it is known,—or to have the still greater privilege of being ourselves the ministers of comfort to wants, which otherwise could not have been relieved by us, because they could not have been discovered,—when the heart which we love is weighed down with imaginary grief, to have it in our power, by a few simple sounds, to convert anguish itself into rapture,—these are surely no slight advantages; and yet, compared with the benefit which it affords to man as an intellectual being, even these are inconsiderable. To be without language, spoken or written, is almost to be without thought; and if, not an individual only, living among his fellows, whose light may be reflected upon him, but our whole race had been so constituted, it is scarcely possible to conceive that beings, whose instincts are so much less various and powerful than those of the other animals,

¹ Reid's Inquiry into the Human Mind, c. iv, sect. 1.

could have held over them that dominion which they now so easily exercise. Wherever two human beings, therefore, are to be found, there language is. We must not think, in a speculative comparison of this sort, of mere savage life; for the rudest savages would be as much superior to a race of beings without speech, as the most civilized nations at this moment are, compared with the half-brutal wanderers of forests and deserts, whose ferocious ignorance seems to know little more than how to destroy and be destroyed. Even these are still associated in tribes, that concert together verbally their schemes of havoc and defence; and employ, in deliberating on the massacre of beings as little human as themselves, or the plunder of a few huts that seem to contain nothing but misery and the miserable, the same glorious instrument with which Socrates brought wisdom down from heaven to earth, and Newton made the heavens themselves, and all the wonders which they contain, descend, as it were, to be grasped and measured by the feeble arm of man.

Such are the benefits of language, even in its fugitive state; but the noblest of all the benefits which it confers, is in that permanent transmission of thought which gives to each individual the powers and the wisdom of his species; or rather, — for the united powers and wisdom of his species, as they exist in myriads at the same moment with himself, upon the globe, would be comparatively a trifling endowment, — it gives him the rich inheritance of the accumulated acquisitions of all the multitudes, who, like himself, in every preceding age, have inquired, and meditated, and patiently discovered, or by the happy inspiration of genius, have found truths which they scarcely sought, and penetrated, with the rapidity of a single glance, those depths of nature which the weak steps

and dim torch-light of generations after generations had vainly laboured to explore. By that happy invention, which we owe indirectly to the ear, the boundaries of time seem to be at once removed. Nothing is past; for every thing lives, as it were, before us. The thoughts of beings who had trod the most distant soil, in the most distant period, arise again in our mind, with the same warmth and freshness as when they first awoke to life in the bosom of their author. That system of perpetual transmigration—which was but a fable, as believed by Pythagoras,—becomes reality when it is applied, not to the soul itself, but to its feelings. There is then a true metempsychosis, by which the poet and the sage, in spreading their conceptions and emotions from breast to breast, may be said to extend their existence through an ever-changing immortality. Who does not feel the justness of what Lucan says, when he speaks of the events of Pharsalia, and predicts the lively feelings with which they are afterwards to be regarded, not as past, and therefore indifferent, but as present and almost future:

Hæc et apud seras gentes, populosque nepotum,
Sive sua tantum venient in secula fama,—
Sive aliquid magnis nostri quoque cura laboris
Nominibus prodesse potest,—cum bella legentur,
Spesque metasque simul, perituraque vota movebant;
Attonitique omnes, veluti venientia fata
Non transmissa legent, et adhuc tibi magni favebunt.¹

“There is, without all doubt,” as has been justly observed, “a chain of the thoughts of human kind, from the origin of the world down to the moment at which we exist,—a chain not less universal

¹ Pharsalia, lib. vii. 207-213.

than that of the generation of every being that lives. Ages have exerted their influence on ages; nations on nations; truths on errors; errors on truths." In conformity with this idea of the generation of thought, I may remark, that we are in possession of opinions,—which, perhaps, regulate our life in its most important moral concerns, or in all its intellectual pursuits,—with respect to which, we are as ignorant of the original authors, by whom they have been silently and imperceptibly transmitted to us from mind to mind, as we are ignorant of those ancestors, on whose existence, in the thousands of years which preceded our entrance into the world, our life itself has depended, and without whom, therefore, we should not have been.

The unlimited transmission of thought, which the invention of language allows, brings the universe of mind into that point of view, in which an eloquent living French author has considered the physical universe,—as exhibiting at once all its splendid varieties of events, and uniting, as it were, in a single moment, the wonders of eternity. "Combine," says he, "by your imagination, all the fairest appearances of things. Suppose that you see, at once, all the hours of the day, and all the seasons of the year,—a morning of spring and of autumn,—a night brilliant with stars, and a night obscure with clouds,—meadows, enamelled with flowers,—fields, waving with harvest,—woods, heavy with the frosts of winter,—you will then have a just notion of the spectacle of the universe. Is it not wondrous that, while you are admiring the sun, who is plunging beneath the vault of the west, another observer is beholding him as he quits the regions of the east,—in the same instant reposing, weary, from the dust of the evening, and awaking, fresh and

youthful, in the dews of morn ! There is not a moment of the day in which the same sun is not rising, shining in his zenith, and setting on the world ! or, rather, our senses abuse us, and there is no rising, nor setting, nor zenith, nor east, nor west ; but all is one fixed point, at which every species of light is beaming at once from the unalterable orb of day."

In like manner,—if I may venture to consider the phenomena of the mind in the same fanciful point of view,—every moment may be said to be exhibiting the birth, and progress, and decay of thought. Infancy, maturity, old age, death, are mingled, as it were, in one universal scene. The opinions which are perishing in one mind, are rising in another ; and often, perhaps, at the last fading ray of the flame of genius, that may have almost dazzled the world with excess of brilliancy, some star may be kindling, which is to shine upon the intellectual universe with equal light and glory :—

Flowers of the sky ! ye too, to age must yield,
Frail, as your silken sisters of the field !
Star after star from heaven's high arch shall rush :
Suns sink on suns, and systems systems crush ;
Headlong, extinct, to one dark centre fall,
And Death, and Night, and Chaos, mingle all !
—Till, o'er the wreck, emerging from the storm,
Immortal Nature lifts her changeeful form ;
Mounts from her funeral pyre on wings of flame,
And soars, and shines,—another, and the same.¹

Such are the benefits resulting from that happiest of all inventions, which we may be said to owe to our sense of hearing ; if, indeed, it be an invention of man, and not rather, as many have thought, a coeval power bestowed on him by his provident Creator at the very

¹ Darwin's Botanic Garden, canto iv. 371-380.

moment which gave him life. But still, whether original or invented, the ear must equally have been its primary recipient. We have seen, in the view which we have taken of it, that of our more social intercourse it constitutes the chief delight: giving happiness to hours, the wearying heaviness of which must otherwise have rendered existence an insupportable burden; and that, in its more important character, as fixed in the imperishable records which are transmitted, in uninterrupted progression, from the generation which passes away to the generation that succeeds, it gives to the individual man the product of all the creative energies of mankind; extending even to the humblest intellect, which can still mix itself with the illustrious dead, that privilege which has been poetically allotted to the immortality of genius, of being "the citizen of every country, and the contemporary of every age."

LECTURE XXI.

On Hearing, continued.

GENTLEMEN, after considering, in a former Lecture, some states of mind which arise immediately from affections of our nerves, and which, therefore, I can see no reason for classing apart from our other sensations, I proceeded, in my last lecture, to consider the feelings which are more commonly termed sensations, beginning with the most simple of these, in the order of smell, taste, and hearing.

In the elucidation of these, my great object was to show, that there is nothing in the mere states of mind

that constitute the sensations of fragrance, sweetness, sound, which could have led us to ascribe them to corporeal objects as their causes, — more than in any of our internal joys or sorrows, — if we had had no other means of acquiring knowledge of those causes than are afforded by the sensations themselves,—that, in short, we consider them as sensations or external affections of the mind, because we have previously believed in an external world, — not that we believe in an external world merely because we have had those particular sensations.

The various advantages which these three senses afford, I endeavoured to point out to you; and, in particular, occupied a great part of my lecture in illustrating the advantages for which we are indebted to our organ of hearing, as the medium of language, and by it, more or less directly, not of the high acquisitions of science and civilisation only, but of the rudest forms of social communication, and almost of social existence.

After the remarks on this advantage received from language, which is unquestionably, and beyond all comparison, the most inestimable benefit which the sense of hearing affords, it would be improper to omit wholly the mention of the pleasure which we receive from it as a source of musical delight, — of that expression of feeling, which itself, almost like verbal discourse, may be said to be a language, since it is the utterance of thought and emotion from heart to heart; but which has a voice as independent of the mere arbitrary forms of speech, as the tears of gratitude or the smiles of love, that may, indeed, give eloquence to words, but require no words to render them eloquent. Though, when very strictly considered, even the pure and almost spiritual delight of music, may perhaps be counted only a pleasure of sense, it

yet approaches, by so many striking analogies, to the nature of our intellectual enjoyments, that it may almost be said to belong to that class; and though, relatively to minds that are capable of enjoyments more truly intellectual, it is to be considered as a mere pastime or relaxation, it assumes a far higher character in its relation to the general pleasures of common minds, and may be said, at least, to be the intellectual luxury of those who are incapable of any other luxury that deserves so honourable a name. And it is well that there should be some intermediate pleasure of this sort, to withdraw for a while the dull and the sensual from the grosser existence in which they may be sunk, and to give them some glimpses, at least, of a state of purer enjoyment than that which is to be derived from the sordid gains and sordid luxuries of common life.

Of the influence, whether salutary or injurious, which music has upon the general character, when cultivated to great refinement, and so universally as almost to become a part of the habit of daily social life, it is not at present the place to speak. But of its temporary influence as a source of tranquillizing delight, there can be no doubt; nor, perhaps, too, of its occasional efficacy in exciting emotions of a stronger kind, when peculiar circumstances may have predisposed to them in a very high degree. But there can be as little doubt, that by far the greater number of anecdotes of this kind which have been handed down in ancient history, are as fabulous as the existence of that god of music, to whose miraculous influence alone they could, with any decent appearance of epic or dramatic truth, have been ascribed.

Hear how Timotheus' varied lays surprise,
And bid alternate passions fall and rise;

While, at each change, the son of Libyan Jove
 Now burns with glory, and then melts with love ;
 Now his fierce eyes with sparkling fury glow ;
 Now sighs steal out, and tears begin to flow ;
 Persians and Greeks like turns of nature found,
 And the world's victor stood subdued — by sound.¹

On these lines, which allude to the celebrated ode of Dryden,—who adapted, with most happy application to the burning of the Persian palace, an anecdote recorded of the power of Timotheus over the same great warrior on another occasion,—I may remark, by the way, what influence the accidental composition of this ode has had, in giving almost a sort of dignity to the very madness of the act which it records. It is impossible for us,—even though we know well how fictitious is the circumstance attached to it,—not to look upon the action in a different light from that in which we should have viewed it, if we had read only the historical account of it, as originating in a drunken debauch, at the instigation of a drunken prostitute.

*Ebrio scorto de tanta re ferente sententiam, unus et alter, et ipsi mero onerati, assentiunt: Rex quoque fuit avidior quam patientior. “Quin igitur ulciscimur Græciam, et urbi faces subdimus?” Omnes incaluerunt mero; itaque surgunt temulenti ad incendendam urbem, cui armati, perpercerant.*²

Such is the influence of genius. Its power extends not over the present and the future merely, but, in some measure, also over the past, which might have seemed fixed for ever. In spite of our conviction, we look upon an action of Alexander differently, because an individual existed many centuries after him, and in a country which would then have been justly

¹ Pope's *Essay on Criticism*, 374–381.

² *Quintius Curtius*, lib. v. cap. 7.

counted barbarous by the very barbarians whom he overcame.

Of the wonders, which were said, in ancient times, to have been performed on the mind and body, by a judicious adaptation of musical sounds to the nature of the particular case, intellectual, moral, or corporeal, I might read many histories to you from the original authors, which would, perhaps, not be less truly ludicrous in the serious gravity of their narration, than in the affected solemnity of the fictitious personage whose speech I am about to quote. The experiment with which the quotation closes is, it must be allowed, a very powerful one, and certainly could not have been more successful in the hands of Timotheus himself.

“The bare mention of music threw Cornelius into a passion. ‘How can you dignify,’ quoth he, ‘this modern fiddling with the name of music? Will any of your best hautboys encounter a wolf now-a-days, with no other arms but their instruments, as did that ancient piper, Pythocaris? Have ever wild boars, elephants, deer, dolphins, whales, or turbot, showed the least emotion at the most elaborate strains of your modern scrapers, all which have been, as it were, tamed and humanized by ancient musicians? Whence proceeds the degeneracy of our morals? Is it not from the loss of ancient music, by which (says Aristotle) they taught all the virtues? Else might we turn Newgate into a college of Dorian musicians, who should teach moral virtues to those people. Whence comes it that our present diseases are so stubborn? whence is it that I daily deplore my sciatical pains? Alas! because we have lost their true cure, by the melody of the pipe. All this was well known to the ancients, as Theophrastus assures us, (whence Cælius

calls it *loca dolentia decantare*;) only indeed some small remains of this skill are preserved in the cure of the tarantula. Did not Pythagoras stop a company of drunken bullies from storming a civil house, by changing the strain of the pipe to the sober spondæus? and yet your modern musicians want art to defend their windows from common nickers. It is well known that when the Lacedæmonian mob were up, they commonly sent for a Lesbian musician to appease them, and they immediately grew calm as soon as they heard Terpander sing: Yet I don't believe that the Pope's whole band of music, though the best of this age, could keep his holiness's image from being burnt on a fifth of November.' 'Nor would Terpander himself,' replied Albertus, 'at Billingsgate, nor Timotheus at Hockley in the Hole, have any manner of effect, nor both of them together bring Horneck to common civility.' 'That's a gross mistake,' said Cornelius, very warmly; 'and to prove it so, I have here a small lyra of my own, framed, strung, and tuned after the ancient manner. I can play some fragments of Lesbian tunes, and I wish I were to try them upon the most passionate creatures alive.' — 'You never had a better opportunity,' says Albertus, 'for yonder are two apple-women scolding, and just ready to uncoif one another.' With that Cornelius, undressed as he was, jumps out into his balcony, his lyra in hand, in his slippers, — with a stocking upon his head, and waistcoat of murrey-coloured satin upon his body. He touched his lyra with a very unusual sort of an harpegiatura; nor were his hopes frustrated. The odd equipage, the uncouth instrument, the strangeness of the man and of the music, drew the ears and eyes of the whole mob that were got about the two female champions, and at last of the com-

batants themselves. They all approached the balcony, in as close attention as Orpheus's first audience of cattle, or that of an Italian opera, when some favourite air is just awakened. This sudden effect of his music encouraged him mightily, and it was observed he never touched his lyre in such a truly chromatic and enharmonic manner as upon that occasion. The mob laughed, sung, jumped, danced, and used many odd gestures, all which he judged to be caused by the various strains and modulations. 'Mark,' quoth he, 'in this, the power of the Ionian; in that you see the effect of the Æolian.' But in a little time they began to grow riotous, and threw stones: Cornelius then withdrew. 'Brother,' said he, 'do you observe I have mixed unawares too much of the Phrygian? I might change it to the Lydian, and soften their riotous tempers: but it is enough; learn from this sample to speak with veneration of ancient music. If this lyre in my unskilful hands can perform such wonders, what must it not have done in those of a Timotheus or a Terpander?' Having said this he retired with the utmost exultation in himself, and contempt of his brother; and, it is said, behaved that night with such unusual haughtiness to his family, that they all had reason to wish for some ancient Tibicen to calm his temper."¹

That, in enlightened countries, so many wonders should have been related, and credited, — if no phenomena that could justify them were truly observed, — may perhaps, on first reflection, appear so unaccountable, as almost to induce belief of the wonders themselves, as less inexplicable than the very credit which was given to them. But it must be remem-

¹ Mart. Scrib. book i. c. 7, with some exclusions.

bered, that in all ages, and even in countries of philosophers, there is a very large fund of credulity in man, — which yields, very readily, to every thing that is not absolutely impossible, and which is even not very nice in estimating what is impossible, — leaning always, whenever there is the slightest doubt on this point, with a very favourable inclination, to the side of the possibility ; — and, in the second place, that the phenomena of music are precisely of a kind which gives this credulity the widest scope. They are pleasing in themselves, and of a kind, therefore, on which it is gratifying to the imagination to dwell : their influence on the mind is felt in a very high and wonderful degree, even without any fabulous addition ; — they are produced by instruments, which seem, in their sensible appearance, so little adequate to the production of them, that the result is almost like the effect of supernatural agency to which we know not how to give any limits ; — and, when a little mystery is once admitted, the imagination, which has fairly got over the difficulty of this first admission, is not very scrupulous afterwards as to degrees, but is sufficiently ready of itself to admit a great deal more, without pausing to consider its exact amount.

The phenomena of music, in addition to their general interest, are truly worthy, in another respect, of our astonishment, from that striking diversity of organic power in the perception of melody, and still more of harmony, which they exhibit in different individuals, in whom all other circumstances are apparently the same, — a diversity which has often attracted the attention of philosophers, and has led even those who have no great tendency to speculation of any kind, to wonder at least, which is the first step of all philosophizing. In the present instance, however,

unfortunately, this first step is the only step which philosophers have been able to take. They have been obliged to desist, after all their efforts to proceed further, and to submit to share, and even to acknowledge that they share, the ignorance of the vulgar. If, indeed, the want of musical ear had involved either a general defect of hearing, or a general slowness of discrimination in other cases of nice diversity, the wonder would not have been great. But those who are without ear for music perceive, as readily as others, the faintest whisper; they distinguish, like them, the faintest shades of difference in the mere articulations of sound which constitute the varieties of language, nor the articulations only, but the differences also of the mere tones of affection or displeasure, grief or gaiety, which are so strikingly analogous to the varied expression of musical feeling; and their power of discrimination in every other case in which the judgment can be exercised, is not less perfect. Nay, to increase still more the difficulty, they are often as sensible as others, of the beauty of series of tones of a different kind; and some of our best poets and declaimers,—who of course must have had a quick discernment of metrical rhythm, and of the melody of elocution,—have yet been incapable of distinguishing the musical relations of sounds, as reciprocally high or low, the melody that results from them in certain successions, and the harmony or the discord of their union. That it depends chiefly, or perhaps entirely, on the structure or state of the mere corporeal organ of hearing,—which is of a kind, it must be remembered, peculiarly complicated, and therefore susceptible of great original diversity in the parts, and relations of the parts, that form it, is very probable; though the difference of the separate parts

themselves, or of their relations to each other may, to the mere eye, be so minute as never to be discovered by dissection, — thus leaving, to every future race of inquirers, the same difficulty which has perplexed ourselves, and the same impossibility of overcoming it. In the sense of vision, I may remark, there is a species of defect, very analogous to the want of musical ear,—a defect which consists in the difficulty, or rather the incapacity of distinguishing some colours from each other—and colours, too, which, to general observers, seem of a very opposite kind. As the want of musical ear implies no general defect of mere quickness of hearing, this visual defect, in like manner, is to be found in persons who are yet capable of distinguishing, with perfect accuracy, the form, and the greater or less brilliancy of the coloured object; and I may remark, too, in confirmation of the opinion that the want of musical ear depends on causes not mental but organic, that, in this analogous case, some attempts, not absolutely unsuccessful, have been made, to explain the apparent confusion of colours, by certain peculiarities of the external organ of sight. Though the one case, however, were to throw no light upon the other, it is still gratifying to philosophers to have a case at all analogous, to which, when they are weary of considering what has baffled all their endeavours to explain it, they may have the comfort of turning away their attention, without the mortification of seeming absolutely to fly from the subject. Such is the strange constitution of our nature, that merely to have another difficulty presented to us, though it may yet be absolutely insurmountable in itself,—if only it have some slight resemblance to a former difficulty,—seems to us almost as if we had succeeded in explaining the first; and each difficulty,

by a very convenient transposition, which our pride knows well how to make, supplies, according as we may have been considering the one rather than the other, the place of explanation to that which is afterwards to explain it, no less clearly, in its turn.

In considering sound relatively to its external cause, we give the name of vibration to the successive pulses, or alternate approaches and recessions of the particles of the elastic sounding body; and the word is a very convenient one for expressing this series. But still it may be necessary to warn you, that the word, though single, is not the less expressive of a plurality of states which have no other unity than as they are comprehended in this single word,—a word, like many other single words, by which we express the combination of various objects, or incidents invented by us merely to aid our weakness, that is incapable, without such helps, of conceiving or remembering even a small part of that wide series of physical changes which we are able to discover in the universe, if each event of the series were to be distinguished by a peculiar name. This mere aid of our weakness, however, we are apt, by a very absurd, but a very general fallacy, to consider as something much more dignified in its nature than a mere arbitrary verbal abbreviation,—as truly an explanation of the very phenomena, or series of phenomena, which it simply designates. You must not flatter yourselves, however, that you have advanced the slightest step, in explaining the connexion of sound with the pulses of air, when you have merely invented a brief term for those successive pulses, and ascribed the sound to vibration; you have, indeed, given a name to a series of corpuscular phenomena, but you have not discovered any thing additional to the phe-

nomena themselves, which can be considered as explanatory of the changes produced.

What, then, is truly meant, when it is said that, for producing the mental affection, which constitutes hearing, some previous vibration is necessary? It certainly cannot mean, as I have already remarked, that the vibration is any thing in itself different from the series of physical events which it expresses, however few or numerous these may be, since it is only the name which we give to them, when we consider them together; nor can it mean that the direct cause of the sensation is any thing different from the one organic state immediately preceding the sensation,—a state which may, indeed, have resulted from a long sequence of prior organic states, produced during the continued vibratory motion of the air, but which is itself, in its relation to the phenomenon which succeeds it,—that affection of the sentient mind which constitutes hearing,—to be considered independently of these prior states, that have no other relation to the mind, than as gradually inducing that ultimate organic state which is the state that is followed by sensation. There is a part, less or greater, of the sensorial organ, which must be affected in a certain manner, before the sensation of hearing can take place; and, in vibration, there is nothing but a repeated approach and recession of the vibrating particles. If vibration, then, or a series of pulses, be necessary, it is evident that a corresponding series of changes in the organ is necessary; that is to say, there is no one instant, at which the vibrating particles are in such a state, relatively to the sensorial organ, that if no previous changes had been excited in the organ itself, they could have produced in it immediately the precise state which is instantly followed by the mental affection of hearing.

There must, therefore, be a series of changes, in the sensorial organ itself, the last of which only is followed by sensation. The particles of the air, or any other elastic medium, for example, must, in their first appulse, produce a certain state of the sensorial organ ; in their second appulse, a different state, by acting on an organ already affected in a certain manner ; in their third appulse, a still different state ; and thus successively, till, at last, they produce that particular definite state of the sensorial organ, in consequence of which the mind becomes instantly sentient,—a state which could not have been produced by any single impulse of the particles on the unaffected organ, because then vibration, or a series of pulses, would not have been necessary.

To this successive modification of states of an organ, terminating in a particular result, different from each of the prior states, there are abundant analogies in the history of the mind, and many in the phenomena of sensation itself. One of the most remarkable of these is the production of the sensation of whiteness, by the rapid revolution of a cylinder, on which the separate prismatic colours, and the separate colours only, are painted, in certain proportions :—each colour, in this case, acting on the organ already affected by a former colour, till a sensation, altogether different from the result of each of them when separate, is their joint ultimate result,—the sensation of whiteness, without any external object that is white.

In this way only, by a series of progressive organic affections, and not by any single affection, can the vibration of an elastic medium, as different from one simple unrepeatd impulse, terminate in the production of sound. It is, in short, a name for this series of changes, and nothing more.

If, in a case so very obscure as that of musical ear,—in which all that is truly evident is, that, in different individuals, there is a diversity of some kind or other,—I could permit myself to indulge any conjecture with respect to this diversity, I might, perhaps, be inclined to look to the view now given of the real nature of vibration, and its progressive effects on the auditory part of our nervous system, as furnishing some slight ground, not indeed, for any theory, which is far too presumptuous a word, but for the preference of one mere possibility, to other mere possibilities, which is all that can be hoped in any conjecture, on so very dim and impalpable a subject.

We have seen that the series of pulses of the vibrating air,—if vibration, or a series of pulses be necessary to sound,—must produce a series of changes in the sensorial organ, which produce no corresponding affection of the mind, till, at last, a state of the organ is produced, which is attended with sensation. This, and this only, can be meant, when we speak of vibration as the antecedent of sound,—a series of organic changes, and, after this series, an affection of the mind. In such circumstances, it is certainly more probable that the organ thus affected with a series of progressive changes, does not pass instantly from the greatest change to the state in which it was originally, before the first pulse, but that it retains this state, for a time, however short, or, at least, passes through some series of states, in its gradual return; so that, if a new vibration be excited by the pulse of any sounding body, before the organ of hearing have returned to its original state, the effect may be supposed to be different, from that which it would have been, if the same vibration had been primarily communicated to the organ, in its state of rest, or in

that state, which, from our want of a better word, may be termed its state of rest.

The phenomena most analogous to these vibratory affections of the ear, as depending on successive pulses, are unquestionably the phenomena of titillation or rather, to express what is so familiar and simple by a more homely and appropriate word, the phenomena of tickling. In this, the great circumstance distinguishing musical feeling, is to be found, that feeling arises not from the separate impressions, from their successions or coexistence. When the palm of the hand is gently tickled, as the finger passes rapidly and repeatedly over the palm, the parts affected are again affected with various degrees of pressure, as the ear, in melody, is successively affected by repeated varieties of vibration; and various parts of the organ of touch exist, at the same moment in various states, forming one joint result of sensation, as, in harmony, various vibrations of the organ of hearing coexist, and blend together in one mingled delight. To produce tickling, a certain rapidity of succession is necessary; for, if the parts, first affected have returned to their original state, before other parts begin to be affected, or themselves to be affected again, the slow motion, it is evident, may be continued for any length of time, without any effect different from that of simple pressure. The quicker, then, the return of the parts may be to their original state, the less will be the titillation; and it is, very probably, the difference in this quickness of return, which constitutes the difference of ticklishness, so remarkable in different individuals, who feel, equally, the light pressure of each separate touch. That there is a difference of ticklishness, in different persons, you all know; some being easily excited, even to convulsive laughter,

slight motions that scarcely produce any effect in others, beyond that of the simple primary sensation of touch. A person who is ticklish, and a person who is not ticklish, agree in receiving this first tactual sensation: but they differ afterwards, in this respect, that when the same slight impulse is rapidly repeated, on the same surface, it produces a livelier effect than before, in the one, but not in the other. The organ of the one who is not ticklish is in the same state, or nearly in the same state, when it receives the second, third, and fourth impression, as when it received the first, and no peculiar excitement therefore is produced. The organ of the other, more susceptible, or more tenacious of the affection produced, has not returned to its original state, when the rapid impression is repeated, and is, therefore, at every new impression, affected in a different manner.

Proceeding on the analogy of these phenomena, — of mere tickling, with which I may suppose you to be all acquainted, — an analogy which, striking as it is in many circumstances, I readily own, does not justify more than conjecture in the case to which I would apply it, — I conceive it to be, at least, not absolutely impossible, since a diversity of some kind there must be, that in those who receive no pleasure from music, as in those who are not ticklish, there is a rapid return of the nervous organ, after each separate affection, to its original state; that each separate touch or pressure in the one case, and each separate tone in the other case, produces its particular effect, — that effect which it would have produced in all, if unaccompanied by any other tone in music, or slight pressure in tickling, — but that a succession of these produces no effect different from that which each would have produced singly. A certain interval is necessary for distinct

hearing in every case; and before this interval has passed, the auditory nerves, in this case, may be imagined to be again quiescent, or nearly quiescent.

I need not add, that in an inquiry of this sort, all which is necessary is to account for the mere original defect of pleasure; since, if the relations of notes, as reciprocally high or low, never gave any delight, the ear, having no object of interest in these successions, would soon habitually neglect them, and at length cease altogether to distinguish them, attending only to the verbal meaning of sounds, and not to their tone; in the same manner as we pay little attention to another relative difference of voices as more or less loud, unless when the difference is very considerable, and not in those common differences of intensity which distinguish every voice in conversation from every other voice, — or as, after living long in a province, the dialect of which is distinguished by any accentual peculiarities, we at last become unconscious of these, and hear the words, as it were, stripped of their peculiarity of tone. In what is termed the cultivation of a musical ear, however, we have not an analogy merely, but a direct proof of this influence of habit. That the ear may be improved by cultivation, or, in other words, by nice attention to the differences of musical sound, every one knows; and if this attention can enable us, even in mature life, to distinguish sounds as different in themselves, which, but for the habitual attention, we should have regarded as the same, it may well be supposed, that continued inattention from earliest infancy may render us insensible of musical relations still more obvious and precise than those which we have thus only learned to distinguish; or, which is the same thing, that continued attention from infancy to slight musical

differences of sound, — an attention which may be regarded as the natural effect of pleasure received, — may render us capable of distinguishing tones as very dissimilar, the differences of which, however obvious at present, we should scarcely, but for such original attentive discrimination, have been able to detect. What, in comparison, the refined musical ear of a performer, — almost every hour and every moment of whose life has been spent amid sounds,

Untwisting all the chains that tie
The hidden soul of harmony, —¹

is to a common musical ear, that common musical ear may be to those in whom this discriminating skill seems to be wholly or nearly defective. The refined musician, — who, but for the long practice of his art, would have shared that incapacity which now excites his wonder, — is astonished that persons of common ear do not distinguish the nice differences which appear to him almost as remarkable as those differences which they are capable of perceiving; and the person of common musical ear only does the same thing, when he is astonished that the less refined differences, remarked by himself, are not obviously distinguishable by all mankind, or, at least, by all who have no deafness to incapacitate them from hearing the separate sounds. The discrimination in both has depended on previous attention, which has necessarily been greater in one case than in the other; and what attention can we suppose to have been originally given, if, from the cause which I have ventured to state as a possible one in persons without musical ear, no pleasure had originally been felt by them in any sequence of notes as successive, and the whole value of sound been to them the meaning of which it

¹ Milton's *L'Allegro*, 143-145.

was symbolically representative, which, accordingly, they have learned to discriminate in every case, as accurately as others.

I might follow out this speculation at much greater length; but I have already dwelt too long on what is at best a conjecture, and what, perhaps, even as a mere conjecture, is founded only on a slight analogy.

After the examination of the phenomena of smell, taste, and hearing, which are peculiarly simple, I proceed to the consideration of senses which afford phenomena that are more complicated, or, at least, which seem more complicated, as considered in the mature state of the mind; when the sensations that arise from one set of organs, by frequent coexistence with sensations that arise from affections of other sets of organs, are, as it were, blended with them in one compound perception, and so permanently modified for ever after, that it is difficult in all cases, and in many cases perhaps impossible, to form any accurate notion of the sensations as they existed in their original elementary state.

Since, of the two senses of sight and touch, that of sight, — as far, at least, as we are able, by intellectual analysis at present to discover its original sensations, — is more simple, and more analogous to the senses before considered, I should be inclined on these accounts to proceed to the consideration of it, previously to any inquiry into the sense of touch. But this order, though unquestionably the more regular, if we had to consider only the original sensations of each organ, would be attended with great inconvenience in considering their subsequent modified sensations; since those of vision depend, in a very great degree, on the prior affections of touch, with

the nature of which, therefore, it is necessary for you to be acquainted in the first place. I am aware, indeed, that, in considering even touch, I may sometimes find it necessary to refer, for illustration, to the phenomena of vision, though these have not been considered by us, and must, therefore, for the time, be taken upon trust. But when phenomena are at all complicated, such occasional anticipations are absolutely unavoidable. Sensation, indeed, says Aristotle, is a straight line, while intellect is a circle,—*Ἀίσθησις γραμμὴ, νοῦς κύκλος*,—or, to use the paraphrastic translation of Cudworth, in his treatise on Immutable Morality, “Sense is of that which is without. Sense wholly gazes and gads abroad; and, therefore, doth not know and comprehend its object, because it is different from it. Sense is a line, the mind is a circle. Sense is like a line, which is the flux of a point running out from itself; but intellect like a circle that keeps within itself.”¹ That sense is not a circle, is indeed true, since it terminates in a point; but, far from being a straight line, it is one of the most perplexing of curves; and is crossed and cut by so many other curves,—into many of which it flows and unites with them completely,—that, when we arrive at the extremity of the line, it is almost impossible for us to determine with accuracy what curve it is, which, in the strange confusion of our diagram, we have been attempting to trace from its initial point.

I proceed, then, to the consideration of the phenomena of the sense of

TOUCH.

If priority of sensation alone were to be regarded, the sense of touch might deserve to be considered in the

¹ Pp. 98, 99.

first place ; as it must have been exercised long before birth, and is probably the very feeling with which sentient life commences. The act of birth, in relation to the mind of the little stranger who is thus painfully ushered into the wide scene of the world, is a series of feelings of this class ; and the first feeling which awaits him on his entrance, in the change of temperature to which he is exposed, is still to be referred to the same organ. It is at this most important moment of existence, when one dark and solitary life of months, of which no vestige is afterwards to remain in the memory, is finished, and a new life of many years, a life of sunshine and society, is just beginning, that, in the figurative language of the author, whom I am about to quote to you, Pain, the companion of human life, receives him on the first step of his journey, and embraces him in his iron arms.

Primas tactus agit partes, primusque minutæ
 Laxat iter cæcum turbæ, recipitque ruentem.
 Non idem huic modus est qui fratribus : amplius ille
 Imperium affectat senior, penitusque medullis,
 Visceribusque habitat totis, pellisque recentem
 Funditur in telam, et late per stamina vivit.
 Necdum etiam matris puer eluctatus ab alvo,
 Multiplices solvit tunicas, et vincula rupit ;
 Sopitus molli somno, tepidoque liquore
 Circumfusus adhuc ; tactus tamen aura lacessit
 Jamdudum levior sensus, animamque reclusit.
 Idque magis, simul ac solitum blandumque calorem
 Frigore mutavit cœli, quod verberat æri
 Impete inassuetos artus : tum sævior adstat,
 Humanæque comes vitæ Dolor excipit ; illo
 Cunctantem frustra et tremulo multa ore querentem
 Corripit invadens, ferreisque amplectitur ulnis.¹

It is at this moment, so painful to himself, that he is affording to another bosom, perhaps, the purest

¹ Gray de Princip. Cogit. lib. i. 64-80.

delight of which our nature is capable, and has already kindled in a heart, of the existence of which he is as ignorant as of the love which he excites in it, that warmth of affection, which is never, but in the grave, to be cold to him, and to which, in the many miseries that may await him,—in sorrow, in sickness, in poverty, and perhaps, too, in the penitence of guilt itself,—when there is no other eye to whose kindness he can venture to look, he is still to turn with the confidence that he has yet, even on earth, one friend who will not abandon him, and who will still think of that innocent being, whose eye, before it was conscious of light, seemed to look to her for the love and protection which were ready to receive him.

LECTURE XXII.

*On the Feelings usually ascribed to the sense of Touch, and
Analysis of these Feelings.*

IN my last Lecture, Gentlemen, I finished the remarks which I had to offer on our sense of hearing; and, in the conclusion of it, had begun the consideration of a very important order of our feelings, those which belong to the sense of touch.

Of these, I may mention, in the first place, the sensations of heat and cold; sensations that arise from affections of our nerves of touch, or at least from affections of nerves which, as equally diffused and intermingled with them, it is impossible to distinguish from those which constitute our organ of touch: the same wide surface rendering us sensible, as it were, at every point, of warmth as of pressure.

I have already remarked to you, how little analogy there is of our sensations of warmth, to the other sensations commonly ascribed to this organ; and the great difference of the feelings has led some physiologists to believe, that the organs of sensations so different, must themselves be different. But, even though the sensations were as dissimilar as is supposed, there is no reason *a priori* to believe, — and to experience, it is evident that, in this case, we cannot appeal, so as to derive from it any ground for believing, — that sensations, which are very different, must arise from affections of different organs. As far, indeed, as we can safely appeal to experience, in this very case, there are sensations which we never hesitate in referring to our tactual nerves, as different from the more common sensations ascribed to touch, as the sensation of warmth itself. I allude to the pain of puncture or laceration of the skin. Indeed, if the brain be ultimately the great organ of all our sensations, it is evident that we must refer to affections of one sensorial organ, not the various feelings of touch only, but, with them, the still greater variety of feelings that constitute our sensations of smell, taste, sound, and colour.

But are we indeed sure, that there truly is that great dissimilarity supposed, or may not our belief of it arise from our reference to touch of sensations that truly do not belong to it? Such, at least, is the opinion to which I think a nicer analysis will lead us. The primary original feelings which we owe to our mere organ of touch, I consider as of a kind, all of which are far more analogous to the sensations of warmth, or of pain on puncture, than to the perceptions of form and hardness, which are generally regarded as tangible. Before entering on the analysis,

however, it will be necessary to consider, what are the sensations which we are supposed to owe to this organ.

The sensations of heat and cold,—as received from our organ of touch, — we may almost lay out of account in our analytical inquiry. It is unnecessary to dwell on them, or even to repeat, in application to them, the argument which has been already applied more than once to the sensations before considered. It is quite evident, that, in classing our warmth or chillness, as a sensation,—and not as a feeling that has arisen spontaneously in the mind,—we are influenced by that experience, which has previously given us the belief of objects external,—at least, of our own corporeal frame,—and that, if we had been unsusceptible of any other sensations than those of heat and cold, we should as little have believed these to arise directly from a corporeal cause, as any of our feelings of joy or sorrow. The same remark may be applied to the painful sensations of puncture and laceration.

It is only to the other more important information ascribed to the sense of touch, therefore, that our attention is to be directed.

By touch, we are commonly said to be made acquainted with extension, magnitude, divisibility, figure, motion, solidity, liquidity, viscosity, hardness, softness, roughness, smoothness. These terms, I readily allow, are very convenient for expressing notions of certain forms or states of bodies, that are easily distinguishable. But, though specifically distinguishable, they admit generically of very considerable reduction and simplification. Hardness and softness, for example, are expressive only of greater or less resistance,—roughness is irregularity of resistance, when there are

intervals between the points that resist, or when some of these points project beyond others,—smoothness is complete uniformity of resistance,—liquidity, viscosity, are expressive of certain degrees of yieldingness to our effort, which solidity excludes, unless when the effort employed is violent. All, in short, I repeat, are only different species or degrees of that which we term resistance, whatever it may be, which impedes our continued effort, and impedes it variously, as the substances without are themselves various. Such is one order, then, of the feelings commonly ascribed to the sense which we are at present considering.

To proceed to the other supposed tangible qualities, before included in our enumeration,—figure is the boundary of extension, as magnitude is that which it comprehends; and divisibility, if we consider the apparent continuity of the parts which we divide, is only extension under another name. If we except motion, therefore, which is not permanent, but accidental,—and the knowledge of which is evidently secondary to the knowledge which we acquire of our organs of sense, before which the objects are said to move,—and secondary in a much more important sense, as resulting not from any direct immediate organic state of one particular moment, but from a comparison of sensations past and present,—all the information, which we are supposed to receive primarily and directly from touch, relates to modifications of resistance and extension.

Though it is to the sense of touch, however, that the origin of the knowledge of these is generally ascribed, I am inclined to think, in opposition to this opinion, that, in both cases, the reference is wrongly made,—that, if we had the sense of touch only, we

should not be sensible of resistance, nor, I conceive, even of extension,—and that we seem to perceive the varieties of extension and resistance immediately by touch only, because the simple original tactual feeling has become representative of these, in the same manner, and for the same reason, as we seem to perceive the varieties of distance immediately by the eye. The sense of touch has unquestionably, like all our other senses, its own peculiar feelings, though, for the simple original feelings attached to the affections of this most extensive of organs, we have unfortunately no name but that which is applied in popular, and even in philosophic language, to all the affections of the mind. Our joy or grief, hope or fear, love or hate, I before remarked, we term feelings, as readily and frequently as we use this term to express our sensations of touch; and that which, however restricted in its original meaning, is now the common name of our mental affections of every class, has, by this extension, unfortunately become a very unfit one for distinguishing a limited order of those affections.

Whatever be the term which we may use, however, there is, and must be a sensation peculiar to touch, without regard to the extent or quantity of the surface impressed,—as there is, in colour, a sensation peculiar to vision, without regard to the extent of the portion of the retina on which the light may have fallen. Every physical point of our organ of touch, when existing in a certain state, is capable of inducing in the mind a peculiar feeling, though no other physical point of the organ were affected,—as every physical point of the retina, though but a single ray of light were admitted to the eye, is capable of inducing in the mind a peculiar affection of vision; and when many such physical points are affected together

- by some impressing surface, the form of which we think that we discover immediately by touch, it is from experience only that we can learn the vicinity of the physical points of our own tactual surface thus impressed, and consequently the continued extension of the object which impresses them. Before we have so much knowledge of external things as to know even that we have any bodily organs whatever,—and it is of this state of absolute ignorance alone that we must think, as often as we speculate on the information which our senses separately afford,—when we know as little of our bodily frame as of that material universe of which we know nothing, we cannot, by the very terms of this supposition, know, that different points of our organ of touch are affected in a certain manner—that these points are contiguous to each other—and that the mass affecting these contiguous points must consequently itself be composed of points, that are, in like manner, contiguous. We know nothing of our organs—we know nothing of any external masses—but a certain feeling is excited in our mind; and it is this simple feeling alone, whatever it may be, which constitutes the direct elementary sensation of touch, though this simple elementary sensation, like many other sensations, may afterwards be so blended with other feelings as to become significant of them, and even to seem to involve them, as if originally and necessarily co-existing.

It is impossible for us at present, indeed, to have a body impressed on us, without the immediate notion of something external and extended,—as it is impossible for one, whose sight is perfect, to open his eyes in the light of day, without perceiving, as it were, immediately, the long line of variegated land-

scape, in the scenery before him:—the one impossibility is exactly equal to the other;—yet we know, in the case of vision, that all which we immediately perceive, at the very moment when our eyes seem to comprehend the worlds of half infinity, in the hemisphere on which we gaze, is a small expanse of light,—if, even which I greatly doubt, there truly be, in our original perceptions of this sense, so much of extension as is implied in the smallest possible expanse. In touch, in like manner, I conceive that the immediate sensation, though, like colour, it may now seem inseparable from extension and *outness*,—if, on the authority of Berkeley, I may venture to use that barbarous but expressive term,—was, like colour, originally distinct from them,—that, by the mere original sensations of this organ, in short, we could as little know the existence of an impressing body, as, by the mere original sensations of vision, we could learn that such a body existed at the extremity of the room in which we sit.

In defining sensation, when we began our inquiry into its nature, I stated it to be that affection of the mind which is immediately subsequent to the affection of certain organs, induced by the action of external bodies; and I admitted that in this definition, two assumptions were made,—the existence of foreign changeable external bodies, as separate from the mind,—and the existence of organs, also separate from the mind, and in relation to it truly external, like other bodies, but forming a permanent part of our corporeal frame, and capable of being affected, in a certain manner, by the other bodies, of which the existence was assumed. As far as our analytical inquiry has yet proceeded, these assumptions are assumptions still. We have not been able to detect,

in the sensations considered by us, more than in any of our internal pleasures or pains, any circumstances that seem to be indicative of a material world without.

Our analytical inquiry itself, however, even in attempting to trace the circumstances in which the belief originates, must proceed on that very belief. Accordingly, in examining our senses of smell, taste, and hearing, I uniformly took for granted the existence of odoriferous, sapid, and vibratory bodies; and considered merely, whether the sensations excited by these were of themselves capable of communicating to us any knowledge of the external and independent existence of the bodies which excited them.

In the present stage of our inquiry, I must, in like manner, take for granted the existence of bodies which act, by their contiguity or pressure, on our organ of touch, as the odoriferous or sapid particles act on our nerves of smell and taste—not that I assume this belief as existing in the mind whose intellectual acquisitions are the subject of inquiry,—for, in that case, the inquiry itself would be superfluous. I assume it merely as existing in the minds of us the inquirers,—and only because it is impossible, without such an assumption, to make the suppositions that are necessary for the inquiry. All our language is at present adapted to a system of external things. There is no distinct vocabulary of scepticism; and even the most cautious and philosophic inquirer, therefore, must often be obliged to express his doubt or his dissent in language that implies affirmation. In the present case, when we attempt to analyze our sensations, it is impossible to speak of the circumstances in which the infant is placed, or, I may say even, to speak of the infant himself, without that

assumption which we have been obliged to make. The real existence of an external universe, and the belief of that existence, are, however, in themselves, perfectly separate and distinct; and it is not the existence of an external world which we are now endeavouring to establish as an object of belief. We are only endeavouring, in our analysis of the sensations afforded by our different organs, to ascertain in what circumstance the belief arises. There might be a world of suns and planets, though there were no human being whose mind could be affected with belief of it; and even the most zealous defenders of the reality of external nature must admit, that, though no created thing but ourselves were in existence, our mind might still have been so constituted as to have the very series of feelings which form at present its successive phenomena, and which are ascribed in no small number to the action of external things.

Are the primary sensations derived from the organ of touch, then, of such a kind as to afford us that knowledge which they are supposed to give of things without?

Let us imagine a being endowed with the sense of touch, and with every other sense and faculty of our mind, but not with any previous knowledge of his own corporeal frame, or of other things external, — and let us suppose a small body, of any shape, to be pressed, for the first time, on his open hand. Whatever feelings mere touch can give, directly of itself, would of course be the same in this case as now, when our knowledge is increased and complicated from many other sources.

Let the body, thus impressed, be supposed to be a small cube, of the same temperature with the hand itself, that all consideration of heat or cold may be

excluded, and the feeling produced be as simple as possible.

What, then, may we suppose the consequent feeling to be ?

It will, I conceive, be a simple feeling of the kind of which I have already spoken, as capable of arising from the affection of a single point of our organ of touch, — a feeling that varies, indeed, with the quantity of pressure, as the sensation of fragrance varies with the number of the odorous particles, but involves as little the notion of extension, as that notion is involved in the mere fragrance of a violet or a rose. The connexion of this original tactual feeling, however, with that of extension, is now so indissoluble, — as indeed it could not fail to become, in the circumstance in which it has uniformly arisen, — that it is almost impossible to conceive it as separate. We may perhaps, however, make a near approach to the conception of it, by using the gentle gradual pressure of a small-pointed body, which, in the various slight feelings excited by it, — before it penetrates the cuticle, or causes any considerable pain, — may represent, in some measure, the simple and immediate effect which pressure, in any case, produces, exclusively of the associate feelings which it indirectly suggests.

Such of you as have the curiosity to try the experiment with any small bodies not absolutely pointed, — such as the head of a pin, or any body of similar dimensions, — will be astonished to feel how very slightly, if at all, the notion of extension or figure is involved in the feeling, even after all the intimate associations of our experience ; certainly far less than the notion of longitudinal distance seems to us to be involved in the immediate affections of our sense of

sight. It is an experiment, therefore, which I must request you not to neglect to make.

But the pressure of such a large body as the cube, which we have supposed to be pressed against our organ of touch, now awakens very different feelings. We perceive, as it were immediately, form and hardness. May not, then, the knowledge of resistance and extension, and consequently the belief of the essential qualities of matter, be originally communicated by the affections of this organ?

The feeling of resistance,—to begin with this,—is, I conceive, to be ascribed, not to our organ of touch, but to our muscular frame, to which I have already more than once directed your attention, as forming a distinct organ of sense; the affections of which, particularly as existing in combination with other feelings, and modifying our judgments concerning these, (as in the case of distant vision, for example,) are not less important than those of our other sensitive organs. The sensations of this class are, indeed, in common circumstances, so obscure as to be scarcely heeded or remembered by us; but there is probably no contraction, even of a single muscle, which is not attended with some faint degree of sensation that distinguishes it from the contractions of other muscles, or from other degrees of contraction of the same muscle. I must not be understood, however, as meaning that we are able, in this manner, by a sort of instinctive anatomy, to perceive and number our own muscles, and, when many of them are acting together, as they usually do, to distinguish each from each; for, till we study the internal structure of our frame, we scarcely know more than that we have limbs which move at our will, and we are altogether ignorant of the complicated machinery which is subservient to the volition

But each motion of the visible limb, whether produced by one or more of the invisible muscles, is accompanied with a certain feeling, that may be complex, indeed, as arising from various muscles, but which is considered by the mind as one; and it is this particular feeling, accompanying the particular visible motion, whether the feeling and the invisible parts contracted be truly simple or compound, which we distinguish from every other feeling accompanying every other quantity of contraction. It is as if a man, born blind, were to walk for the first time in a flower garden. He would distinguish the fragrance of one parterre from the fragrance of another, though he might be altogether ignorant of the separate odours united in each; and might even consider as one simple perfume what was, in truth, the mingled product of a thousand.

Obscure as our muscular sensations are in common circumstances, there are other circumstances, which I pointed out to you in treating before of this subject, in which they make themselves abundantly manifest. I need not refer to the diseased state of the muscles, in which they become painfully sensible; and I will admit that the reference to such a morbid state, in which the structure may be supposed to be altered by the disease, would perhaps scarcely be a fair one. It is sufficient to refer to phenomena of which every one must have been conscious innumerable times, and which imply no disease nor lasting difference of state. What is the feeling of fatigue, for example, but a muscular feeling? that is to say, a feeling of which our muscles are as truly the organ, as our eye or ear is the organ of sight or hearing. When a limb has been long exercised, without sufficient intervals of rest, the repetition of the contraction of its muscles is

accompanied, not with a slight and obscure sensation, but with one which amounts, if it be gradually increased, to severe pain, and which, before it arrives at this, has passed progressively through various stages of uneasiness. Even when there has been no previous fatigue, we cannot make a single powerful effort, at any time, without being sensible of the muscular feeling connected with this effort. Of the pleasure which attends more moderate exercise, every one must have been conscious in himself, even in his years of maturity, when he seldom has recourse to it for the pleasure alone; and must remember, still more, the happiness which it afforded him in other years, when happiness was of less costly and laborious production than at present. By that admirable provision, with which nature accommodates the blessings which she gives to the wants that stand in need of them, she has, in that early period,—when the pleasure of mental freedom, and the ambitions of busy life, are necessarily excluded,—made ample amends to the little slave of affection, in that disposition to spontaneous pleasure, which renders it almost an effort to be sad, as if existence itself were delight; giving him a fund of independent happiness in the very air which she has poured around him, and the ready limbs which move through it almost without his bidding. In that beautiful passage, in which Goldsmith describes the sounds that come, in one mingled murmur, from the village, who does not feel the force of the happiness which is comprised in the single line that speaks of—

The playful children, just let loose from school?¹

It is not the mere freedom from the intellectual task

¹ *Deserted Village*, 120.

of which we think ; it is much more, that burst of animal pleasure, which is felt in every limb, when the long constraint that has repressed it is removed, and the whole frame is given once more to all the freedom of nature. It is by the pleasure of exertion, and the pain of in exertion, that we are roused from that indolence, into which, with great injury to society, that requires our contribution of active aid, we otherwise might sink ; as we are roused, in like manner, by the pleasure of food, and the pain of hunger, to take the aliment that is necessary for our individual sustenance ; and though the mere aliment is, indeed, more important for life, it is not more important for happiness than that pleasure of activity which calls and forces us from our slothful repose.

Thee, too, my Paridel, — I saw thee there,
Stretch'd on the rack of a too easy chair,
And heard thy everlasting yawn confess
The penalties and pains of idleness.¹

With the same happy provision with which she has considered the young of our own species, Nature has in the other animals, whose sources of general pleasure are still more limited than in the child, converted their muscular frame into an organ of delight. It is not in search of richer pasture that the horse gallops over his field, or the goat leaps from rock to rock ; it is for the luxury of the exercise itself. “ If the shell-fish on the shore,” says Dr. Ferguson, “ perform no visible action but that of opening and closing his shell, to receive the brine that accommodates, or to exclude the foul matter that annoys him, there are other animals that, in the opposite extreme, are active ; and for whom Nature seems to administer the means of

¹ Pope's *Dunciad*, book iv. 363–366.

supply, merely as a restorative of that strength which they are so freely to waste in the seemingly sportive or violent exercises to which they are disposed.”¹

The bounding fawn, that darts across the glade,
 When none pursues, through mere delight of heart,
 And spirits buoyant, with excess of glee ;
 The horse as wanton, and almost as fleet,
 That skims the spacious meadow at full speed,
 Then stops, and snorts, and throwing high his heels,
 Starts to the voluntary race again ;
 The very kine, that gambol at high noon,—
 The total herd,—receiving first from one,
 That leads the dance, a summons to be gay ;
 Though wild their strange vagaries, and uncouth
 Their efforts, yet resolved, with one consent,
 To give such act and utterance as they may
 To ecstasy, too big to be suppressed.²

It is this appearance of happy life which spreads a charm over every little group with which Nature animates her scenery; and he who can look without interest on the young lamb, as it frolics around the bush, may gaze, indeed, on the magnificent landscape as it opens before him, — but it will be with an eye which looks languidly, and in vain, for pleasure which it cannot find.

These observations, on our muscular pains and pleasures, in conformity with that view of them which I endeavoured to give you in a former lecture, are not digressive now, nor uselessly repeated. It is of great importance, for the applications which we have to make, that you should be fully aware that our muscular frame is not merely a part of the living machinery of motion, but is also truly an organ of sense. When I move my arm, without resistance, I am conscious of a certain feeling: when the motion is impeded, by the

¹ Principles of Moral and Political Science, part. i. c. i. sect. 1.

² Cowper's Task, book iv.

presence of an external body, I am conscious of a different feeling, arising partly, indeed, from the mere sense of touch, in the moving limb compressed, but not consisting merely in this compression, since, when the same pressure is made by a foreign force, without any muscular effort on my part, my general feeling is very different. It is the feeling of this resistance to our progressive effort, (combined, perhaps, with the mere tactual feeling,) which forms what we term our feeling of solidity or hardness; and, without it, the tactual feeling would be nothing more than a sensation indifferent or agreeable, or disagreeable or severely painful, according to the force of the pressure, in the particular case; in the same way as the matter of heat, acting, in different degrees, on this very organ of touch, and on different portions of its surface, at different times, produces all the intermediate sensations, agreeable, disagreeable, or indifferent, from the pain of excessive cold to the pain of burning; and produces them, in like manner, without suggesting the presence of any solid body, external to ourselves.

Were the cube, therefore, in the case supposed, pressed, for the first time, on the hand, it would excite a certain sensation, indeed, but not that of resistance, which always implies a muscular effort that is resisted, and consequently not that of hardness, which is a mode of resistance. It would be very different, however, if we fairly made the attempt to press against it; for, then, our effort would be impeded, and the consequent feeling of resistance would arise; which, as coexisting in this case, and in every case of effort, with the particular sensation of touch, might afterwards be suggested by it, on the simple recurrence of the same sensation of touch, so as to excite the notion of hardness in the body touched, without the renewal

of any muscular effort on our part, in the same manner as the angular surfaces of the cube, if we chance to turn our eye on it, are suggested by the mere plane of colour, which it presents to our immediate vision, and which is all that our immediate vision would, of itself, have made known to us. The feeling of resistance, then, I trust, it will be admitted, and consequently of hardness, and all the other modes of resistance, is a muscular, not a tactual feeling.

But, though the resistance or hardness of the cube, as implying the experience of some counter effort, may not be immediately sensible to our superficial organ of touch, are not its dimensions so perceived? Its cubical form, indeed, it will be allowed, cannot be felt, since only one of its surfaces is supposed to be pressed upon the hand; but is not at least this square surface perceived immediately? In short, does not touch, originally and immediately, convey to us the knowledge of extension?

With our present complete belief of external things, indeed, and especially of our organs of sense, the most important of these, the origin of our knowledge of extension, seems to us a matter of very easy explanation. The square surface presses on our organ of touch,—it affects not a single physical point merely, but a portion of the organ, corresponding exactly in surface with itself; and the perception of the similar square, it will be said, thus immediately arises. But, in all this easy explanation, it is very strangely forgotten, that the feeling, whatever it may be, which the impression of the square surface produces, is not itself the square configuration of our tactual organ, corresponding with that surface, but the state of a very different substance, which is as little square as it is round or elliptical,—which is, indeed, from its

own absolute simplicity, incapable of resemblance in shape to any thing; and the resemblance of which, therefore, to the shape of the mere organ, is as little to be expected in the sensations of touch,—as that other state of mind, which constitutes the sensation of the fragrance of a rose, can be expected to resemble the shape of the odorous particles themselves, or of the organ of smell, which is affected by them. The very knowledge which touch is supposed to give, is, in this case, most inconsistently assumed as existing in the mind before the very touch which is supposed to give it. If, indeed, the mind could know that a part of its external corporeal organ is compressed into the form of a square, or that another square surface is compressing that organ, the difficulty would be at an end; for it would then, most undoubtedly, have that very knowledge of extension, the origin of which we seek. But it is not explained, how the mind, which alone can have sensation or knowledge, and which certainly is not square itself, is to be made acquainted with the squareness of its own corporeal organ, or of the foreign body; nor, indeed, how the squareness of the mere external organ should produce this particular affection of the mind, more than if the organ were compressed into the shape of a polygon of one thousand sides.

Let it be supposed, that, when a small cube is pressed on the hand, one hundred physical points of the organ of touch are affected in a certain manner. We have, it is said, an immediate perception of a square surface. Let it next be supposed, that, instead of one hundred of these continuous points of the organ, an equal number of points, at various distances in the surface of the body, are affected in the same manner. On this supposition, it will scarcely be said, that the

perception of a square would arise, when there is no square, more than any other imaginable form, in the space comprehended in the pressure. Yet what difference is there, in these two cases, to a mind that is, by supposition, absolutely ignorant of every bodily organ, and consequently alike ignorant of the nearness or distance of the points of the organ of touch? In both cases, one hundred points, equally sensible, are affected, and are affected precisely in the same manner—and there is truly no difference, unless we tacitly suppose the mind to be conscious of the bodily frame, and, therefore, of the continuity of certain points of the organ of touch, with the other points that are proximate to them,—a sort of knowledge for which it would not be easy to account, and which it is impossible to conceive, without conceding the very point in question. A little attentive reflection on the circumstances of these two cases will perhaps aid you in freeing your minds from the illusive belief, of which it may not be easy for you at first to divest yourselves,—that the continuity and similarity of shape, which are known to us the inquirers, are known also to that little sentient being whose first elements of knowledge we are endeavouring to trace.

We are too apt to forget, in inquiries of this sort, that it is not in our organ of touch merely, that a certain extent of the nervous extremity of our sensorial organ is affected. This occurs equally in every other organ. In the superficial expansion of the nerves of hearing, smell, taste, for example, it is not a point merely that is affected, but a number of continuous points, precisely as in the superficial organ of touch; and if, therefore, the notion of extension in general, or of figure, which is limited extension, arose whenever a part of the nervous expansion was affected in

any way, we should derive these notions as much from a taste, or a smell, or a sound, as from any of the configurations or affections of our organ of touch.

It is not, therefore, merely because a certain limited part of the sensorial organ is affected, that we have the notion of the square surface, in the case supposed by us: for, if this alone were necessary, we should have square inches, and half inches, and various other forms, rectilinear, or curvilinear, of fragrance and sound.

But it may perhaps be urged, though all our organs must, indeed, exist equally with our organ of touch of a certain shape when affected.—and though the sensorial figure of our other organs is not accompanied with any of those mental affections which constitute the perception of angular or curvilinear figure, there is something in the nature of that part of the sensorial organ, which terminates on the general surface of the body, that impresses the mind immediately with a sensation, corresponding with the exact figure in which the organ may itself exist. When the square, therefore, in the case imagined by us, is impressed upon the organ, the mental affection which constitutes our notion of a square may immediately arise, though it would not arise from the similar squareness of our organs of smell or hearing.

In answer to this mere supposition, I may remark, that the sensorial organ of touch exists, at every moment, of a certain shape, and that we yet have no perception of this shape, so as to be able to delineate the whole extent of our tactual organ, in the same manner as we could delineate the impressing square, in the case supposed: or, if it be said, that the configuration of the organ does not excite mental affection, in the quiescent state of

but only when it is itself affected, I may remark, that we are as little able to delineate its figure, when we are exposed to the action of heat, which yet acts most powerfully upon this very organ, inducing sensations, at least as vivid as those of hardness or figure.

It may still, however, be contended,—for, in a question of this sort, I wish fairly to imagine every possible argument,—it may still be contended, that, though the organ of touch has no effect in this way, merely as configured, and might, in any other configuration, operate precisely in the same manner on the sentient mind,—still the harmony of the bodily and mental changes is so arranged by nature, that the organic state in touch, whatever it may be, is immediately followed by the knowledge of the extension of the impressing body,—in the same manner as a certain state of the organ of smell, whatever that state may be, is immediately followed by that affection of the mind which constitutes our sensation of the fragrance of a rose. Though this argument, in truth, rather begs the question than attempts to meet it, let us give to it all the force which it may claim. The accurate determination of the point may, indeed, seem at first almost impossible; since, in whatever manner the seeming perception may arise, it must be admitted that we now seem to perceive extension, as it were immediately, by touch; though not more immediately than in vision we seem to perceive the positions of objects in different distances before our eyes. But there is, fortunately, at least one test which the point in question still admits. If the apparent perception of extension by touch be truly and originally immediate, and not acquired, like the apparent perception of distance in vision, so as to require actual measurement or sugges-

tion of some sort, after the primary sensation, the perception must be constant and universal, not confined to a few simple and familiar forms, which, if we can distinguish these alone, we may be supposed to have learned from experience, but extending to forms of every kind ; for it would certainly be a very strange abuse of the license of supposition, to imagine that we perceive a square immediately but not a circle, or a circle but not a square, or, indeed, any one figure, but not any other figure. Even at present, then, though the circumstances of the trial—when the experience of many years must have exhausted so many varieties of form, associating the notion of these with the particular tactual feeling, whatever that may be—are surely very unfavourable to the opinion which I maintain ; even at present, I may safely trust to experiment the determination of the question. When a body, which we do not see, is pressed on any part of our tactual organ, do we immediately discover its form,—as immediately as we are sensible of fragrance when our organ of smell is in a healthy state, and an odoriferous body is presented to it, or of sound when a cannon is fired beside us ? This we certainly should do, if figure were as direct an object of the sense of touch, as fragrance and sound are of the senses of smell and hearing. Even though it be a form of the simplest kind, square, round, triangular, that is thus pressed upon our palm, we scarcely distinguish the precise species of figure for a moment, and are long before we can convince ourselves that we have perceived its exact magnitude, in the determination of which, after all, we shall very probably be mistaken, if we confine ourselves to the mere intellectual measurement ; though we should even add to the immediate sensation of

touch all the discriminating skill of our judgment and reflection. But, if the body be irregular in form,—however slight the irregularity may be, and of a species that would not perplex in the slightest degree our sense of sight, and which certainly, therefore, should perplex as little our sense of touch, which is supposed to be still more immediately perceptive of form,—we are incapable for some time, and I may even say are incapable altogether, of fixing with precision its magnitude and figure,—that very magnitude and figure which are yet said to be the direct objects of touch. Of this a single trial may convince any one; it is a trial which, as it seems to me decisive, I must request you not to omit. Are we then entitled to say, in the case of the square surface of the cube pressed upon our hand, that, though we cannot discover other forms and magnitudes, we yet discover its extension, and consequently its figure, by the immediate sense of touch?—or may we not rather conclude with confidence, that what is true of other forms is true of this also; that it is only in consequence of more frequent experience we have learned as it were to distinguish, with some degree of certainty, the simpler forms, which, as mere forms, are not more direct objects of the sense of touch than forms the most irregular; and that without such experience, therefore, our mere sense of touch is incapable of informing us of the figure of bodies, immediately and originally?

If, then, the knowledge of extension be not derived from our immediate sense of touch, it must be derived from some other source, which allows it to be associated with the feelings of touch, and afterwards suggested by these, in the same manner as distant extent, in the case of vision, is suggested by a few

slight varieties of colour. Let us endeavour, then, since some such source there must be, to discover what the source is.


LECTURE XXIII.

*Analysis of the Feelings usually ascribed to the Sense of Touch,—
continued.*

MY last Lecture, Gentlemen, was employed in considering the information which we receive from the sense of touch, or rather the information which we are commonly supposed to receive from that sense,—but which, in a great part at least, I am inclined to ascribe to another source.

The qualities of bodies supposed to be made known to us by touch, I reduced to two, of which all, whatever be the variety of names that express them, are mere varieties, *resistance* and *extension*,—solidity, liquidity, viscosity, hardness, softness, roughness, smoothness, being modes of resistance, and nothing more; figure, magnitude, divisibility, as evidently nothing more than modes of extension: and I stated reasons which induced me to believe, that neither our feeling of resistance nor that of extension has its direct origin in the sense of touch; though the original simple feeling, which this organ affords, is now, from constant association, almost indissolubly combined with both, in some one or other of their varieties.

The first of these classes,—that which includes the various modifications of resistance, I examined at great length, and showed, I trust, that it is not to our organ of touch we are indebted for these, but that



they are feelings of another sense, of which our muscular frame is the organ, — the feelings, in short, of which every one must have been conscious, who has attempted to grasp any body, or to press against it, when the full contraction of the muscles must, of course, have been impeded. According as the body is hard or soft, rough or smooth, — that is to say, according as it resists, in various degrees, the progress of our effort of contraction, — the muscular feeling which arises from the variously impeded effort will vary in proportion; and we call hard, soft, rough, smooth, that which produces one or other of the varieties of these muscular feelings of resistance, — as we term sweet or bitter, blue or yellow, that which produces either of these sensations of taste or vision. With the feeling of resistance there is, indeed, in every case, combined a certain tactual feeling, because we must touch whatever we attempt to grasp; but it is not of this mere tactual feeling we think when we term bodies hard or soft, — it is of the greater or less resistance which they afford to our muscular contraction.

I next proceeded to consider the other class of supposed tangible qualities, which includes the various modifications of extension, and urged many arguments to show, in like manner, that — however indissolubly these may seem at present to be connected with the simple feelings of our organ of touch — it is not to our simple original feelings of this sense that we owe our knowledge of them as qualities of things without.

That we now seem to perceive extension immediately by touch, cannot be denied; and, in a case so obscure as this, — with our very limited knowledge, and our very limited power of adding to this know-

ledge, — it may seem the most prudent, and perhaps even the most suitable, — as it is, without all question, by far the easiest part, — to acquiesce in the opinion, that the perception, which now seems immediate, was so originally, — that the belief of the presence of an external figured body is, by the very constitution of our nature, attached to a certain affection of the mere organ of touch. But, since there are circumstances, as we have seen, which show this opinion, when very nicely examined, to be inadmissible, we may, at least, attempt to proceed a little farther, if we do this with a sufficient sense of the very great difficulty of the attempt, in relation to our powers and knowledge, — and consequently with a very humble assurance as to the certainty of any opinion which we may be led to form. To know the mind well, is to know its weaknesses as well as its powers; and it is precisely in a case of this sort, that he, whose knowledge is least imperfect, will be the best judge of its imperfection, and, therefore, the least disposed to put complete reliance on it in his own speculations, — or to assert it dogmatically, when he offers it, as all opinions on so very obscure a subject should be offered, to the inquiry, rather than to the undoubting assent of others.

The analysis, I own, is one which must require a considerable effort of attention on your part, because it is truly one of the most subtle on which I could call you to enter. But you must be aware that this subtlety is in the nature of the very inquiry itself; since it is an inquiry into the elements and progressive growth of feelings, which seem to us, at present, simple and immediate, and that the alternatives, therefore, are not those of greater or less subtlety and refinement of analysis, but of attempting the analysis, or abandoning it altogether.

Before proceeding farther in our inquiry with respect to the origin of the notion of extension, it may, however, be of advantage to take a short retrospect of the progress which we have already made; for if we have found nothing more, we have, at least, as I conceive, found reason to reject a considerable part of our former belief on the subject, which, though a negative acquisition, is yet a very important one. Though we should not be able to discover the true source of the notion which we seek, it is something, at least, to know, that we have little reason to expect to find it where we have uniformly been accustomed to seek it.

In the first place, then, we have seen the fallacy of the supposition, that our knowledge of extension may be easily accounted for by the similarity in figure of the compressed part of the organ of touch to the compressing body, since the notion of extension is not a state of the material organ, compressed and figured, — which, as mere matter, however exquisitely organized, is as little capable of this notion, as of smell or taste, love or aversion, — but a state of the mind itself, which is unsusceptible of shape or pressure, being as little square, when it perceives a square, as when it perceives a circle; and any affection of which, therefore, may be supposed as much to follow any one shape as any other shape of the mere external organ. If, indeed, as this explanation most strangely seems to assume, we could be supposed to have any previous knowledge of the shape of our organ of touch, nothing more would be necessary; for we should then have a perfect knowledge of extension, though no other extended body but our own organ of touch were in existence. To refer us to the organ is, however, only to bring the very same difficulty one step nearer, since,

previously to the application of an external body, the mind has as little knowledge of the shape of its organ of touch as it has of the body compressing it ; and it is manifestly most absurd to ascribe the origin of our knowledge of extension to our knowledge of the resemblance in figure of an external body to our organ ; since this very knowledge of the resemblance must imply the previous knowledge of the figure of both, and consequently of that very extension, which, according to this supposition, must be known to us before it is known.

In the second place, we have seen, that, if the configuration of the sensorial organ were the only circumstance necessary to induce, immediately, in the mind, the notion of figure, this notion should accompany every sensation of every kind, — the smell of a rose, for example, as much as the pressure of a cube, or a sphere ; for the nervous expansion, in the organ of smell, and in every other organ, is of a certain figure, before sensation, during sensation, and after sensation, as much as the nervous expansion of the organ of touch. And, though we were to confine ourselves wholly to this organ, the nervous matter in it is, at all times, of a certain shape, as much when there is no pressure on it as when it is exposed to such pressure ; yet the mere figure of the organ of touch is not then accompanied with the mental notion of its figure ; nor is this the case merely when the sense is quiescent, but, in many cases, in which it is affected in the most lively manner, as, for example, when we are exposed to great cold or heat ; in which cases, the shape of this very tactual organ, thus strongly affected, is as much unperceived by us as when there is no affection of it whatever.

Lastly, — which is a point of much more impor-

tance, because it has relation to the only philosophic view of touch, as the immediate organ of extension,—the view, in which the mere configuration of the compressed organ, as similar to that of the compressing body, is laid out of account, and the immediate belief of extension is supposed to depend on the original constitution of the mind, by which its affections have been arranged, so as to correspond with certain affections of the bodily organs; the mental state which constitutes the perception of a square, arising immediately when the organ of touch is affected, in a certain manner, as that mental state which constitutes the sensation of the fragrance of a rose, arises immediately when the organ of smell is affected in a certain manner: this opinion, too, philosophic as it is, compared with those which we before considered, though, in truth, it only assumes the point in question, without attempting to solve any difficulty supposed to be connected with it, we have yet found to be as little tenable as the opinions that suppose the mental notion of figure to depend on the peculiar figure of the compressed material organ. The consideration which, as I stated in my last lecture, seems to me decisive on this point, is, that if touch informs us of extension immediately, as smell informs us of fragrance, sight of colour, and hearing of sound; it must do this in every instance, without relation to particular figure, as smell, sight, and hearing extend to all odours, hues, and sounds; for it would certainly be, as I said, a very strange abuse of the license of supposition, to imagine that we perceive a square immediately by touch, but not a circle; or a circle, but not a square; or any one figure, but not any other figure. In short, if figure be the direct primary object of touch, as sight is of vision, we should feel immediately

every form impressed, as we see immediately every colour. It is only when the figures are very simple and regular, however, such as we might be supposed to have easily learned, in the same manner as we learn, visually, to judge of distances, that we are able to discover them, as it were, immediately, by touch; and even when we are able, in this manner, to determine the species of figure, that is to say, the mere outline of a body, we are rarely able to determine the exact magnitude which that outline comprehends; yet, as our organ must be affected by each part of the compressing surface, by the central parts as much as by the exterior parts which form its outline, and by these as much as by the central parts; and as every feeling which the organ directly affords must be immediate, when there is no change of the position, or other circumstances of the object, that might vary the sensation, — we should, if mere touch communicated to us the knowledge supposed, be able to determine, exactly and instantly, the magnitude and figure; or it is evident that the determination of magnitude and figure must depend wholly, or in part, on something that is different from touch. The magnitude we are far from being able to discover exactly, even of simple figures; and, when the form is very irregular, and we know nothing more than that a certain body is pressed against our hand, — the magnitude and figure are alike difficult to be discovered; so difficult, that I may safely say that no one, who makes the experiment, will find, on opening his eyes, that his tactual or intellectual measurement has, in any one case, been exact, or his notion of the figure half so distinct as it is now, after a single glance. Can we then think that it is by mere touch we discover figure, as exactly as by the glance of our mature vision, — that we discover it, in all its varieties, originally by touch, and as

accurately at first as after innumerable trials, — when we discover it, only in a few cases that are previously familiar to us, and even in these very imperfectly? The determination of the form impressed, in which we are almost conscious of a sort of intellectual measurement, has surely a much greater resemblance to the perceptions, which we term acquired, than to those which are immediate. In vision, for example, when the original power of that sense has been strengthened and enriched by the acquisitions which it is capable of receiving from other sources, we see a long line of distance before us; and the small distances, with which we are familiar, we distinguish with sufficient accuracy; but in our mere visual measurement of greater distances, we are almost certain to err, taking often the less for the greater, and the greater for the less. It is precisely the same in touch. When a small body, which we have never seen, is pressed upon our hand, we are able, if its surface be square, or circular, or of any other form with which we are well acquainted, to determine its figure, without much hesitation; because we have learned, tactually, to distinguish these regular figures. But, in endeavouring to determine, in this manner, by touch alone, the figure of any irregular body, less familiar to us, though, as a direct object of sense, if touch be the sense of figure, it should be equally and as immediately tangible as the most regular form, we feel a hesitation of the same sort as when we attempt to ascertain, by our eye, the exact distance of a remote object. To know extension or figure, is to know, not one point merely in the surface of a body, but many continuous points; and if, when the surface is circular, we know these continuous points, and their relation to each other, immediately on pressure, we must know, as imme-

diately, the same points and their relations, though the surface comprehending them, instead of being circular, should be of an outline more irregular. We certainly cannot know this irregular surface to have any extension at all, unless we know some parts of it; and, when the pressure is uniform from every point, and the organ of touch uniform, on which the pressure is made, it would be absurd to suppose, that we know fifty, or eighty, of the hundred points which form the impressing surface, but cannot determine its figure, because we are ignorant of the twenty or fifty remaining points, when these remaining points are acting on our organ of touch, in exactly the same manner as the fifty or eighty which we know, and when, if the surface containing merely the same number of points, had been circular, or of any other simple form, as familiar to us, the whole hundred points would have been known to us equally and at once.

When our perceptions of form, then, are so various and irregular, and are more or less quick and precise, exactly as the shape, which we endeavour to determine, has more or less resemblance to shapes that are familiar to us, it does not seem too bold an inference to conclude that the knowledge of figure, — which, as all extension that is capable of being perceived by us, must have some boundary, is nothing more than the knowledge of extension, — is not the state of mind originally and immediately subsequent to affections of our organs of touch, any more than the perception of distance is the state of mind originally and immediately subsequent to affections of our organ of sight; and the very striking analogy of these two cases it will be of great importance for you to have constantly in view, as it will render it less difficult for you to admit many circumstances, with respect to touch,

which you might otherwise have been slower to conceive. That we should seem to perceive extension immediately by touch, though touch, originally and of itself, could not have afforded this perception, will not then appear more wonderful, than the apparently immediate perception of distance by the eye, which of itself, originally, afforded no perception of that sort; nor the impossibility of feeling a body, without the notion of it, as extended, be more wonderful than the similar impossibility of separating colour from extension in the case of distant vision. Above all, the analogy is valuable, as showing the closeness and indissolubleness of the union which may be formed of feelings that have in themselves no resemblance. What common properties could we have conceived in vision, and that absolute blindness which has never had a single sensation from light? and yet it is worthy of remark, that the perceptions of the blind, in consequence of this singular power of association, form truly the most important part of those very perceptions of vision, of which, as a whole, they are unfortunately deprived. We do not merely see with our eyes what we may have felt with our hands but our eyes, in the act of vision, have borrowed, as it were, those very sensations.

The proof that our perception of extension by touch is not an original and immediate perception of that sense, is altogether independent of the success of any endeavour which may be made to discover the elements of the compound perception. It would not be less true that touch does not afford it, though we should be incapable of pointing out any other source from which it can be supposed to be derived. Of the difficulty of the attempt, and the caution with which we should venture to form any conclusion on the

subject, I have already spoken. But the analysis, difficult as it is, is too interesting not to be attempted, even at the risk, or perhaps I should rather say, with the very great probability of failure.

In such an analysis, however, though we are to proceed with the greatest caution, it may be necessary to warn you that it is a part of this very caution not to be easily terrified by the appearance of paradox, which the result of our analysis may present. This appearance we may be certain that any analysis which is at all accurate must present, because the very object of the analysis is to show, that sensations, which appear simple and direct, are not simple,—that our senses, in short, are not fitted, of themselves, to convey that information which they now appear, and through the whole course of our memory have appeared to us, instantly to convey. It is very far, indeed, from following, as a necessary consequence, that every analysis of our sensations which affords a paradoxical result, is, therefore, a just one—for error may be extravagant in appearance as well as in reality. But it may truly be regarded as a necessary consequence, that every accurate and original analysis of our sensations must afford a result, that, as first stated, will appear paradoxical.

To those who are wholly unacquainted with the theory of vision, nothing certainly can seem, as first stated, more absurd than the assertion that we see, not with our eyes merely, but chiefly by the medium of another organ, which the blind possess in as great perfection as ourselves, and which, at the moment of vision, may perhaps be absolutely at rest. It must not surprise you, therefore, though the element which seems to me to form the most important constituent of our notion of extension, should in like

manner, as first stated to you, seem a very unlikely one.

This element is our feeling of succession, or time, — a feeling which necessarily involves the notion of divisibility or series of parts, that is so essential a constituent of our more complex notion of matter, — and to which notion of continuous divisibility, if the notion of resistance be added, it is scarcely possible for us to imagine that we should not have acquired, by this union, the very notion of physical extension, — that which has parts, and that which resists our effort to grasp it.

That memory is a part of our mental constitution, and that we are thus capable of thinking of a series of feelings, as successive to each other, the experience of every moment teaches us sufficiently. This succession, frequently repeated, suggests immediately, or implies the notion of length, not metaphorically, as is commonly said, but as absolutely as extension itself; and the greater the number of the successive feelings may have been, the greater does this length appear. It is not possible for us to look back on the years of our life, since they form truly a progressive series, without regarding them as a sort of length, which is more distinct, indeed, the nearer the succession of feelings may be to the moment at which we consider them, but which, however remote, is still felt by us as one continued length; in the same manner as when, after a journey of many hundred miles, we look back, in our memory, on the distance over which we have passed, we see, as it were, a long track, of which some parts, particularly the nearer parts, are sufficiently distinct, but of which the rest seems lost in a sort of distant obscurity. The line of our long journeying, — or, in other words, that almost immea-

surable line of plains, hills, declivities, marshes, bridges, woods,—to endeavour to comprehend which in our thought, seems an effort as fatiguing as the very journey itself,—we know well can be divided into those various parts: and, in like manner, the progressive line of time,—or, in other words, the continued succession, of which the joy, the hope, the fragrance, the regret, the melody, the fear, and innumerable other affections of the mind, were parts,—we feel that we can mentally divide into those separate portions of the train. Continuous length and divisibility, those great elementary notions of space, and of all that space contains, are thus found in every succession of our feelings. There is no language in which time is not described as long or short, not from any metaphor, for no mere arbitrary metaphor can be thus universal and inevitable as a form of human thought, but because it is truly impossible for us to consider succession, without this notion of progressive divisibility attached to it: and it appears to us as absurd to suppose that, by adding to our retrospect of a week the events of the month preceding, we do not truly lengthen the succession, as it would be to suppose that we do not lengthen the line of actual distance, by adding to the few last stages of a long journey the many stages that preceded it.

It is this spreading out of life into a long expanse which allows man to create, as it were, his own world. He cannot change, indeed, the scene of external things. But this may be said, in one sense, to be the residence only of his corporeal part. It is the moral scene in which the spirit truly dwells; and this adapts itself, with harmonious loveliness, or with horror as suitable, to the character of its pure or guilty inhabitant. If but a single moment of life—a physical point, as it

were, of the long line — could be reviewed at once, conscience would have little power of retribution. But he who has lived, as man should live, is permitted to enjoy that best happiness which man can enjoy,—to behold, in one continued series, those years of benevolent wishes, or of heroic suffering, which are at once his merit and his reward. He is surrounded by his own pure thoughts and actions, which, from the most remote distance, seem to shine upon him wherever his glance can reach; as in some climate of perpetual summer, in which the inhabitant sees nothing but fruits and blossoms, and inhales only fragrance, and sunshine, and delight. It is in a moral climate as serene and cloudless, that the destined inhabitant of a still nobler world moves on in that glorious track which has heaven before, and virtue and tranquillity behind; and in which it is scarcely possible to distinguish, in the immortal career, when the earthly part has ceased and the heavenly begins.

Is it in metaphor only, that a youth, and maturity, and old age of guilt, seem to stretch themselves out in almost endless extent, to that eye which, with all its shuddering reluctance, is still condemned to gaze on them; when, after the long retrospect seems finished, some fraud, or excess, or oppression, still rises and adds to the dreadful line, and when eternity itself, in all the horrors which it presents, seems only a still longer line of the same dreadful species that admits of no other measure than the continued sufferings, and remembrances, and terrors that compose it?

It is a just and beautiful observation of an ancient Stoic, that time which is passed is like something consecrated to the gods, over which fortune and mortality have no longer any power; and that, dreadful as it must be to the wicked, to whom their own

memory is an object of terror, it still, to the virtuous, offers itself as consolation or joy, — not in single moments like the present hour, but in all that long series of years which rises before us, and remains with us at our bidding. “*Ille qui multa ambitiose cupiit, superbe contempsit, insidiose decepit, avaræ rapuit, prodige effudit, — necesse est memoriam suam timeat. Atqui hæc est pars temporis nostri sacra ac dedicata, omnes humanos casus supergressa, extra regnum fortunæ subducta; quam non inopia, non metus, non morborum incursus exagitat. Hæc nec turbari nec eripi potest; perpetua ejus et intrepida possessio est. Singuli tantum dies, et hi per momenta, præsentés sunt: at præteriti temporis omnes, cum jusseris aderunt, ad arbitrium tuum se inspicere ac detineri patientur.*”

By those who can look back on years that are long past, and yet say that the continued progress, or the length and the shortness of time, are only metaphorical expressions, it might be said, with equal justness, that the roundness of a sphere is a metaphor, or the angularity of a cube. We do not more truly consider the one as angular, and the other as round, than we consider the time to be continuously progressive, in which we considered, first the one figure and then the other, and inquired into the properties of each. That which is progressive must have parts. Time, or succession, then, involves the very notions of longitudinal extension and divisibility, and involves these without the notion of any thing external to the mind itself; for, though the mind of man had been susceptible only of joy, grief, fear, hope, and the other varieties of internal feeling, without the possibility of being affected by external things, he would still have been capable of considering these feelings as successive to each other, in a long continued progression, divisible into

separate parts. The notions of length, then, and of divisibility, are not confined to external things, but are involved in that very memory by which we consider the series of the past, — not in the memory of distant events only, but in those first successions of feeling by which the mind originally became conscious of its own permanence and identity. The notion of time, then, is precisely coeval with that of the mind itself; since it is implied in the knowledge of succession, by which alone, in the manner formerly explained to you, the mind acquires the knowledge of its own reality, as something more than the mere sensation of the present moment.

Conceiving the notion of time, therefore, that is to say, of feelings past and present, to be thus one of the earliest notions which the infant mind can form, so as to precede its notions of external things, and to involve the notions of length and divisibility, I am inclined to reverse exactly the process commonly supposed; and, instead of deriving the measure of time from extension, to derive the knowledge and the original measure of extension from time. That one notion or feeling of the mind may be united indissolubly with other feelings, with which it has frequently coexisted, and to which, but for this coexistence, it would seem to have no common relation, is sufficiently shown by those phenomena of vision to which I have already so frequently alluded.

In what manner, however, is the notion of time peculiarly associated with the simple sensation of touch, so as to form, with it, the perception of extension? We are able, in the theory of vision, to point out the coexistence of sensations which produce the subsequent union, that renders the perception of distance apparently immediate. If a similar coexis-

tence of the original sensations of touch, with the notion of continued and divisible succession, cannot be pointed out in the present case, the opinion which asserts it must be considered merely as a wild and extravagant conjecture.

The source of such a coexistence is not merely to be found, but is at least as obvious as that which is universally admitted in the case of vision.

Before I proceed, however, to state to you in what way I conceive the notion to be acquired, I must again warn you of the necessity of banishing, as much as possible, from your view of the mind of the infant in this early process, all those notions of external things which we are so apt to regard as almost original in the mind, because we do not remember the time when they arose in our own. As we know well that there are external things of a certain form acting on our organs, which are also of a certain form, it seems so very simple a process to perceive extension—that is to say, to know that there exist without us those external forms which really exist—that to endeavour to discover the mode in which extension, that now appears so obvious a quality of external things, is perceived by us, seems to be a needless search, at a distance, for what is already before our very eyes. And it will be allowed, that all this would, indeed, be very easy to a mind like ours, after the acquisitions of knowledge which it has made; but the difficulty of the very question is, how the mind of the infant makes these acquisitions, so as to become like ours. You must not think of a mind, that has any knowledge of things external, even of its own bodily organs, but of a mind simply affected with certain feelings, and having nothing but these feelings to lead it to the knowledge of things without.

To proceed, then :—The hand is the great organ of touch. It is composed of various articulations, that are easily movable, so as to adapt it readily to changes of shape, in accommodation to the shape of the bodies which it grasps. If we shut our hand gradually, or open it gradually, we find a certain series of feelings, varying with each degree of the opening or closing, and giving the notion of succession of a certain length. In like manner, if we gradually extend our arms, in various directions, or bring them nearer to us again, we find, that each degree of the motion is accompanied with a feeling that is distinct, so as to render us completely conscious of the progression. The gradual closing of the hand, therefore, must necessarily give a succession of feelings,—a succession which, of itself, might, or rather must, furnish the notion of length, in the manner before stated, the length being different, according to the degree of the closing; and the gradual stretching out of the arm gives a succession of feelings, which, in like manner, must furnish the notion of length,—the length being different according to the degree of the stretching of the arm. To those who have had opportunities of observing infants, I need not say how much use, or rather what constant use, the future inquirer makes of his little fingers and arms; by the frequent contraction of which, and the consequent renewal of the series of feelings involved in each gradual contraction, he cannot fail to become so well acquainted with the progress, as to distinguish each degree of contraction, and, at last, after innumerable repetitions, to associate with each degree the notion of a certain length of succession. The particular contraction, therefore, when thus often repeated, becomes the representative of a certain

length, in the same manner as shades of colour in vision become ultimately representative of distance,—the same principle of association which forms the combination in the one case operating equally in the other.

In these circumstances of acquired knowledge,—after the series of muscular feelings, in the voluntary closing of the hand, has become so familiar that the whole series is anticipated and expected as soon as the motion has begun,—when a ball, or any other substance, is placed for the first time in the infant's hand, he feels that he can no longer perform the usual contraction,—or, in other words, since he does not fancy that he has muscles which are contracted, he feels that the usual series of sensations does not follow his will to renew it,—he knows how much of the accustomed succession is still remaining; and the notion of this particular length, which was expected and interrupted by a new sensation, is thus associated with the particular tactual feeling excited by the pressure of the ball,—the greater or less magnitude of the ball preventing a greater or less portion of the series of feelings in the accustomed contraction. By the frequent repetition of this tactual feeling, as associated with that feeling which attends a certain progress of contraction, the two feelings at last flow together, as in the acquired perceptions of vision; and when the process has been repeated with various bodies innumerable times, it becomes, at last, as impossible to separate the mere tactual feeling from the feeling of length, as to separate the whiteness of a sphere, in vision, from that convexity of the sphere which the eye, of itself, would have been for ever incapable of perceiving.

As yet, however, the only dimension, of the know-

ledge of which we have traced the origin, is mere length; and it must still be explained how we acquire the knowledge of the other dimensions. If we had had but one muscle, it seems to me very doubtful whether it would have been possible for us to have associated with touch any other notion than that of mere length. But nature has made provision for giving us a wider knowledge, in the various muscles which she has distributed over different parts of us to enable us to perform motions in various directions at the same instant, and thus to have coexisting series of feelings, each of which series was before considered as involving the notion of length. The infant bends one finger gradually on the palm of his hand; the finger, thus brought down, touches one part of the surface of the palm, producing a certain affection of the organ of touch, and a consequent sensation; and he acquires the notion of a certain length, in the remembered succession of the muscular feelings during the contraction: he bends another finger; it, too, touches a certain part of the surface of the palm, producing a certain feeling of touch that coexists and combines, in like manner, with the remembrance of a certain succession of muscular feelings. When both fingers move together, the coexistence of the two series of successive feelings, with each of which the mind is familiar, gives the notion of coexisting lengths, which receive a sort of unity from the proximity in succession of the tactual feelings in the contiguous parts of the palm which they touch,—feelings which have before been found to be proximate, when the palm has been repeatedly pressed along a surface, and the tactual feelings of these parts, which the closing fingers touch at the same moment, were always immediately successive,

—as immediately successive as any of the muscular feelings in the series of contraction. When a body is placed in the infant's hand, and its little fingers are bent by it as before, sometimes one finger only is impeded in its progress, sometimes two, sometimes three,—and he thus adds to the notion of mere length, which would have been the same whatever number of fingers had been impeded, the notion of a certain number of proximate and coexisting lengths, which is the very notion of breadth; and with these, according as the body is larger or smaller, is combined always the tactual affection produced by the pressure of the body, on more or fewer of the interior parts of the palm and fingers, which had before become, of themselves, representative of certain lengths, in the manner described; and the concurrence of these three varieties of length, in the single feeling of resistance in which they all seem to meet, when an incompressible body is placed within the sphere of the closing fingers,—however rude the notions of concurring dimensions may be, or rather must be, as at first formed,—seems at least to afford the rude elements from which, by the frequent repetition of the feeling of resistance, together with the proximate lengths of which it has become representative, clearer notions of the kind may gradually arise.

The progressive contractions of the various muscles which move the arms, as affording similar successions of feelings, may be considered in precisely the same light as sources of the knowledge of extension; and by their motion in various directions, at the same time with the motion of the fingers, they concur powerfully in modifying and correcting the information received from these. The whole hand is brought, by the motion of the arm, to touch one part of the

face or body : it is then moved so as to touch another part, and, with the frequent succession of the simple feelings of touch, in these parts, is associated the feeling of the intervening length, derived from the sensations that accompanied the progressive contraction of the arm. But the motion is not always the same ; and, as the same feeling of touch, in one part, is thus followed by various feelings of touch in different parts, with various series of muscular feelings between, the notion of length in various directions, that is to say, of length in various series commencing from one point, is obtained in another way. That the knowledge of extension, or, in other words, the association of the notion of succession with the simple feeling of touch, will be rude and indistinct at first, I have already admitted ; but it will gradually become more and more distinct and precise ; as we can have no doubt that the perception of distance by the eye, is, in the first stages of visual association, very indistinct, and becomes clearer after each repeated trial. For many weeks or months, all is confusion in the visual perceptions, as much as in the tactual and muscular. Indeed, we have abundant evidence of this continued progress of vision, even in mature life, when, in certain professions that require nice perceptions of distance, the power of perception itself, by the gradual acquisitions which it obtains from experience, seems to unfold itself more and more in proportion to the wants that require it.

The theory of the notion of extension, of which I have now given you but a slight outline, might, if the short space of these lectures allowed sufficient room, be developed with many illustrations which it is now

impossible to give to it. I must leave you, in some measure, to supply these for yourselves.

It may be thought, indeed, that the notion of time, or succession, is, in this instance, a superfluous encumbrance of the theory, and that the same advantage might be obtained by supposing the muscular feelings themselves, independently of the notion of their succession, to be connected with the notion of particular lengths. But this opinion, it must be remarked, would leave the difficulty precisely as before; and sufficient evidence in confutation of it may be found in a very simple experiment which it is in the power of any one to make. The experiment I cannot but consider as of the more value, since it seems to me — I will not say decisive, for that is too presumptuous a word — but strongly corroborative of the theory which I have ventured to propose; for it shows that, even after all the acquisitions which our sense of touch has made, the notion of extension is still modified in a manner the most striking and irresistible by the mere change of accustomed time. Let any one, with his eyes shut, move his hand with moderate velocity along a part of a table or any other hard smooth surface, the portion over which he passes will appear of a certain length; let him move his hand more rapidly, the portion of the surface pressed will appear less; let him move his hand very slowly, and the length, according to the degree of the slowness, will appear increased in a most wonderful proportion. In this case there is precisely the same quantity of muscular contraction, and the same quantity of the organ of touch compressed, whether the motion be rapid, moderate, or slow. The only circumstance of difference is the time occupied in the succession of

the feelings; and this difference is sufficient to give complete diversity to the notion of length.

If any one, with his eyes shut, suffer his hand to be guided by another, very slowly, along any surface unknown to him, he will find it impossible to form any accurate guess as to its length. But it is not necessary that we should be previously unacquainted with the extent of surface along which the motion is performed; for the illusion will be nearly the same, and the experiment, of course, be still more striking, when the motion is along a surface with which we are perfectly familiar, as a book which we hold in our hand, or a desk at which we are accustomed to sit.

I must request you not to take for granted the result which I have now stated, but to repeat for yourselves an experiment which it is so very easy to make, and which, I cannot but think, is so very important as to the influence of mere difference of time on our estimation of longitudinal extent. It is an experiment, tried, unquestionably, in most unfavourable circumstances, when our tactual feelings, representative of extension, are so strongly fixed by the long experience of our life; and yet, even now, you will find, on moving your hand slowly and rapidly along the same extent of surface, though with precisely the same degree of pressure in both cases, that it is as difficult to conceive the extent, thus slowly and rapidly traversed, to be the same, as it is difficult to conceive the extent of visual distance to be exactly the same when you look alternately through the different ends of an inverted telescope. If, when all other circumstances are the same, the different visual feelings arising from difference of the mere direction of light, be representative of length in the one case, —

the longer or shorter succession of time, when all other circumstances are the same, has surely as much reason to be considered as representative of it in the other case.

Are we, then, to believe that the feeling of extension, or, in other words, of the definite figure of bodies, is a simple feeling of touch, immediate, original, and independent of time? or is there not rather reason to think, as I have endeavoured to show, that it is a compound feeling, of which time, that is to say, our notion of succession, is an original element?

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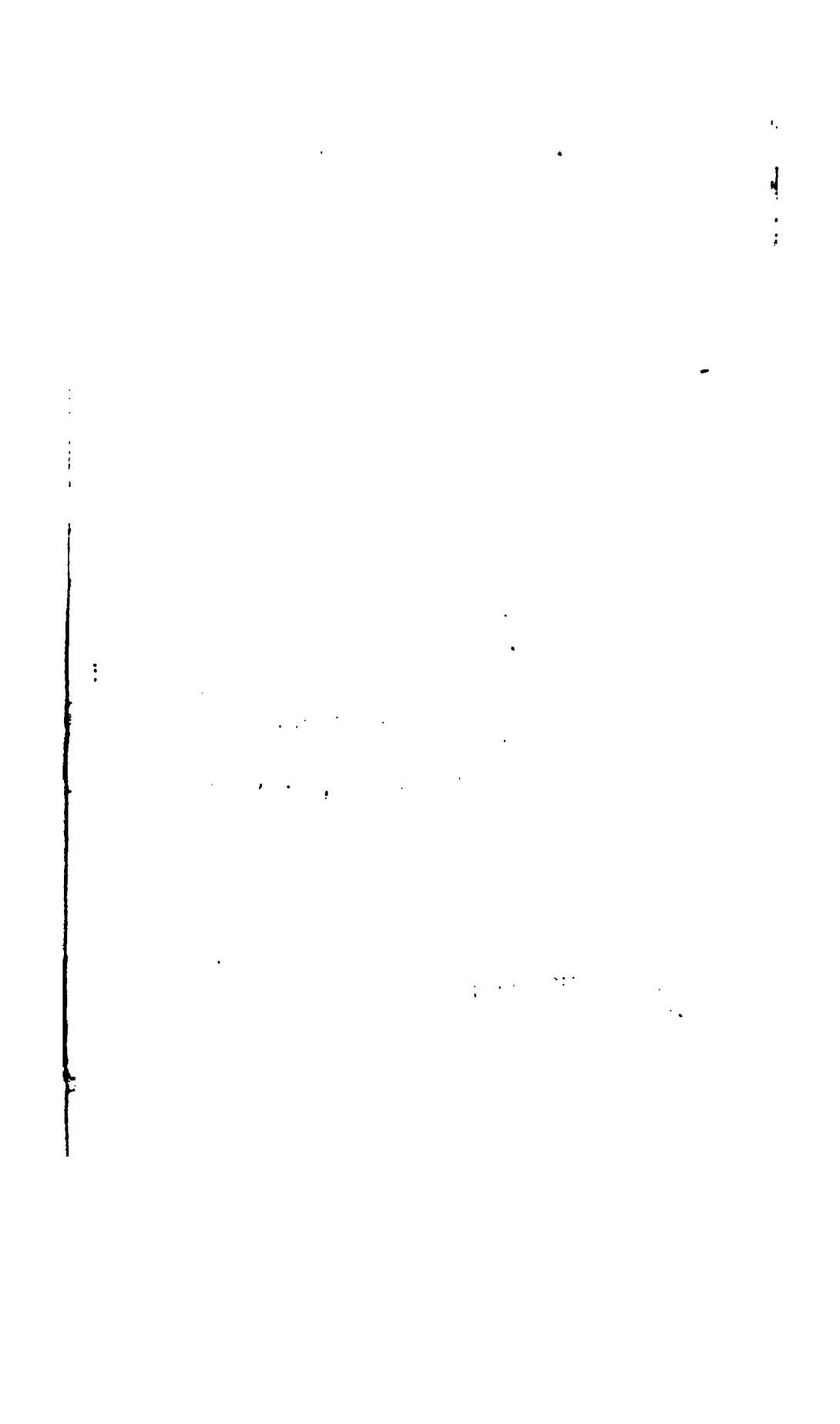
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